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CONTENTS

THE WHOLE OF THE LITERARY MATTER IN THE LANCET IS COPYRIGHT.

HUNTERIAN LECTURE on Pseudo-Hermaphroditism and Hypospadias. Their Surgical Treatment. By ARTHUR EDMUNDS, C.B., M.S., F.R.C.S. — (*With Illustrative Plate*) 323

ORIGINAL ARTICLES.

Right Iliac Fossa Pain. By H. W. CARSON, F.R.C.S. 328
Coeliac Disease: Its Definition and Diagnosis. By REGINALD MILLER, M.D., F.R.C.P. 330
Familial Telangiectasia. By C. F. T. EAST, M.B., M.R.C.P. 332
Carcinoma of the Prostate. Technique of Operation. By A. CLIFFORD MORSON, F.R.C.S. 335
Abscess and Gangrene of the Lung. By T. PEARSE WILLIAMS, M.D. 336
Scopolamine-Morphine Narcosis in Childbirth. By E. C. PLUMMER, M.R.C.S. 338

CLINICAL AND LABORATORY NOTES.

"Lag" Glycosuria. By E. M. WATSON, M.D. ... 339
Supraclavicular Adenitis. By FRANK BODMAN, M.B. 340
Floating Hepatic Lobe. By A. J. E. CAVE, M.B. 340

MEDICAL SOCIETIES.

Medical Society of London: Right Iliac Fossa Pain.. 341
Royal Society of Medicine: Section of Otology: Fracture of the Base of the Skull 342
Medical Society for the Study of Venereal Diseases: Urethritis and Cervicitis in the Female. 343
North of England Obstetrical and Gynecological Society: Vaginal Hysterectomy 344
Brighton and Sussex Medico-Chirurgical Society 345
Bristol Medico-Chirurgical Society 346

REPORTS AND ANALYTICAL RECORDS.

Malvern Waters: (1) Still Pure Natural Water of Malvern; (2) Sparkling "Malvernia."—Pyotropin 350

REVIEWS AND NOTICES OF BOOKS.

Les Syndromes d'Aortite Postérieure. By Ch. Laubry and others 347
Studien zum Problem des Pulsus Paradoxus. By Dr. L. J. van der Mandele 347
Basal Metabolism. By John T. King, Jr. 347
Murrell's "What to do in Cases of Poisoning." Revised by Philip Hamill, M.D., D.Sc. 347
La Tuberculose Pulmonaire. By Prof. Léon Bernard. 347
Smith's Elementary Chemistry. Revised by Prof. James Kendall 348
The Science of Happiness. By Harold Dearden, M.R.C.S. 348
British Journal of Surgery 348
Quarterly Jour. of Medicine 349
Jour. of Industrial Hygiene 349
Terapia Contemporanea... 349

NEW INVENTIONS.

A Simple Outfit for Paracentesis Thoracis. By F. G. Crookshank, M.D. —(*Illustrated*) 350
A Portable Vision-Test Cabinet. By W. R. Dunstan, M.B.—(*Illustrated*) 350

LEADING ARTICLES.

THE PAYING PATIENT.... 351
INSANITY—LEGAL AND MEDICAL 352
THE MENTAL EFFECT OF PHYSICAL DEFORMITY .. 353
A COMMITTEE ON VACCINATION 354

ANNOTATIONS.

Malaria Treatment of Cerebral Syphilis 354
The Factory Code 355
Climatic Bubo 355
Fly Prevention in the Tropics 356
Retroperitoneal Cysts 356
Public Health in Jugo-Slavia 356
Electrolytic Disinfectant Fluid 357
"The Bulletin of Hygiene" 357
An Eighteenth Century Essay on Gout 357

MODERN TECHNIQUE IN TREATMENT.

CLX.—Treatment of Movable Kidney. By T. E. HAMMOND, F.R.C.S.—(*Illustrated*) 358

SPECIAL ARTICLES.

The Doctor's Car: Car Prices in 1926 360
Medicine and the Law: Points from Recent Inquests. — Registration of Optical Practitioners: A New Bill 361
Vienna: Suicides in Vienna 362
United States of America: Prevalence of Cancer ... 362

PUBLIC HEALTH SERVICES.

Nursing at the Shirley Warren Infirmary 363
Infectious Disease in England and Wales 363

CORRESPONDENCE.

Coronary Embolism (Prof. George R. Murray) 364
Bone-Setting and Osteopathy (Mr. A. S. Blundell Bankart) 364
Thyroid Gland and Calcium Therapy (Drs. J. A. Drake and I. G. Cobb).. 364
Treatment of Tinnitus Aurium (Mr. George C. Cathcart) 365
Manipulative Surgery (Sir Bruce Bruce-Porter).... 366
Charing Cross Hospital Institute of Pathology (Dr. J. A. Murray) 366
Cholera in Russia: A Satisfactory Position (Dr. V. N. Polovtsev) 366
Hysterical Disorders in Children (Dr. Hildred Carlill) 366
Intra-Urethral Negative Pressure During Coitus (Mr. H. Wansey Bayly). 366

OBITUARY.

William Bateson, F.R.S., D.Sc. 367

PARLIAMENTARY INTELLIGENCE.

Notes on Current Topics: Births and Deaths Registration 370
House of Commons: Charges by Opticians to Insured Persons.—Factory Legislation. — The Effect of Disease on Morals. — Incidence of Miners' Phthisis.—Dental Treatment of School-Children.—Physical Deficiency in Naval Recruits.—Registration of Nursing Homes. — Compensation under Tuberculosis Order.—Unqualified Medical Practice' 370

THE SERVICES.

Royal Naval Medical Service.—Royal Army Medical Corps. — Royal Air Force.—Indian Medical Service 367

MEDICAL NEWS.

Roy. Coll. Phys. Lond. and Surg. Eng. 368
Roy. Coll. Phys. Edin., &c. 368
Mental Disease in Ireland 340
Sussex Provident Scheme . 340
British Institute of Philosophical Studies..... 342
Heart Disease in Childhood 346
Public Health Course for Nurses 358
Wrexham Hospital 366
Hospital Saturday Fund .. 368
Royal Institution 369
Chelsea Clin. Soc. 369
Med. Soc. for Study of V.D. 369
Medico-Legal Society 369
Soc. of M.O.H. 369
Fellowship of Med. and Post-Grad. Med. Assoc. . 369
Rivers Memorial Medal ... 369
London (R.F.H.) School of Med. for Women 369
Bradford Hosp. and Conv. Fund 369
Manchester Christie Hosp. Prize Lecture 369
St. Mary's Hospital, Paddington 369
City Smoke Problem..... 369
Treatment of Surgical Tuberculosis 369
Liverpool Dental Hospital. 369
Small-pox in Derby 369
International Society of Surgery 369
Victoria Hospital, Southend-on-Sea 370
North Staffordshire Infirmary 370
Donations and Bequests.. 370
King Edward Memorial Hospital, Bombay..... 370
Ulster Hospitals 370

NOTES, COMMENTS, AND ABSTRACTS.

The Voluntary Mental Patient. By NORMAN R. PHILLIPS, M.D. 375
Brighter Biochemistry 376
A Call to Medical Esperantists 376
"Emergoplast" 376
The "Constante" Truss.. 376
Manchester Royal Infirmary 376

Medical Diary 373
Appointments.—Vacancies 374
Births, Marriages, Deaths 374

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SURGEON TO KING'S COLLEGE HOSPITAL.

(With Illustrative Plate.)

THE current teaching concerning the operation for hypospadias is well expressed in an article by H. A. Fowler in Cabot's "Modern Urology" published in 1924. In this article the author states:—

"It is quite apparent, from the numerous procedures which have been suggested, that no entirely satisfactory operation for the cure of peno-scrotal and perineal hypospadias has been devised. This condition still remains one of the most difficult to treat successfully."

The list of names of the authors, who have published operations for the treatment of this condition, is a very long one; and one is almost driven to think that there can be few surgeons who have not devised an operation. But, in reading the accounts of these procedures, one cannot feel that the authors are writing with any degree of conviction, and photographic records of the results of operation are conspicuously rare. It is difficult to reconcile many of the procedures recommended with the conditions which actually exist; and it is hard to see how anything but a cicatricial mass could result from many of them.

An operation, for example, in which the anterior urethra is reconstructed by a stab wound through the vascular fibrous structures of the penis, lined with a transplanted saphenous vein, does not satisfy the demands nor agree with the known principles of surgery; and even should the graft become vascularised, it is still more difficult to understand how the endothelial lining of a blood-vessel can become converted into a mucous membrane.

The use of a section of the ureter is more reasonable; but this is extremely difficult to obtain, and it must be in only very exceptional circumstances that an operation entailing the removal of a piece of healthy ureter would coincide with an opportunity for transplantation. It has been suggested that the surviving organs from a recent corpse might be used, but, apart from any theoretical considerations as to the use of tissues from another individual, there are obvious difficulties and objections to this. These suggestions, however, are very instructive as showing the despair with which many surgeons view the treatment of hypospadias.

In Keen's "Surgery" the author says, "Occasionally brilliant results are obtained," but I hope to show that not only can an occasional result be obtained, but that these can be obtained in practically every case. The only operation that appeals to me as being on sound lines is that of Bucknall; but this is open to the grave objection that he used flaps of the scrotum with the liability of transplanting hairs into the interior of the urethra. Bucknall quotes three successful cases which he followed up for a few years. Most of the writers in text-books advocate the operation of Beck, in which, after the organ has been straightened, a flap of skin is transplanted to the under surface of the penis, fashioned into a tube, and then brought to the tip of the penis through a tunnel made by transfixing the glans. In Mayo's operation a similar principle is adopted, but the tube is fashioned on the dorsum and brought through a stab wound down towards the bladder. It is possible that in some cases these grafted tubes may have survived, but the operation must be fraught with uncertainty, and one cannot help feeling that, even if it were successful, the result would be an organ tied down by a fibro-cicatricial band through its midst.

Josserand has suggested making an artificial tunnel by transfixion lined with a skin-graft wound round a rod—an epithelial inlay in fact. These operations have been devised for the milder degrees of the deformity and are obviously unsuitable for the more extreme cases, and, I should think, are impracticable for any case where the opening of the urethra is seated more than a very short distance behind the glans. In Binnie's "Treatise of Operative Surgery" the author advocates Beck's operation when the urethral opening is not too far from the glans, and states that for extreme cases "nothing can be done." The recent development of the tubed flap will, of course, make it possible to transplant as much tissue as may be required on to the penis, but I doubt whether any modification of this method will succeed in producing as natural and satisfactory an organ as the simple flap operation which I describe, although I have no doubt that by its use a tubular organ of any size and length can be readily constructed. The deformity is not extremely rare. Five cases occurred in ten years at Queen Charlotte's Hospital out of 18,334 births, and it is fairly obvious that there is room for a satisfactory operation, unless one adopts the point of view that, inasmuch as these patients do not suffer from incontinence, there is no need to do anything.

I venture to think that there is no deformity for which treatment is more urgently called. For example, a lady of my acquaintance had a little son born with this deformity. Her brother, who was a medical man, regarded it as a family calamity, and a medical friend expressed the opinion "that it would be a good thing if the child died." The parents were extremely anxious that his deformity should not be known. He was not allowed to go to school or to go to any parties or festivities, where the need to urinate and the posture he was compelled to adopt would reveal his condition. This may have been an extreme view to take, but it requires little imagination and knowledge of the average small boy to realise that a schoolboy with hypospadias would be seriously handicapped, and would be liable to unkind comments from his schoolmates. The case I have just mentioned has been operated on with complete success; the child now mixes ordinarily with other children and is preparing for a public school. Beyond this, which one might term a social reason for the operation, there are others. The stream cannot be projected forward, the child, unless carefully supervised, is apt to get wet and the perineum to get sore and eczematous. The child himself realises that he is different from the rest of the community and is liable to various forms of perversion. Marriage is, of course, impossible, and in every way the child's happiness is seriously handicapped.

VARIETIES OF HYPOSPADIAS.

From the point of view of treatment these cases fall into four groups. In all the prepuce is cleft on the under side and redundant on the upper aspect.

1. The glans alone is cleft. Usually there is a deep groove on the under surface of the glans, the edges of which lie in close apposition one to another, so that the urethral opening consists of a couple of lips, which are not situated at the tip of the organ, but pass down for a short distance on to its under side. The lower wall of the urethra is usually thinned out at its termination.

This condition calls for no treatment at all unless the meatus should be constricted. As a matter of fact it is generally abnormally patent. One patient who consulted me about the abnormal appearance of his penis suffered no inconvenience at all, married and had several children.

2. The opening of the urethra is situated at some point behind the glans on the body of the penis. In this group the groove in the glans is shallow and sometimes the urethral

opening is constricted. When the urethra opens far forward there is usually no incurvation of the penis, when it opens near the scrotum there may be a certain amount of curvature. In fact, the nearer the opening of the urethra is to the perineum the greater is the liability to curvature of the penis.

3. The urethra opens at the root of the scrotum and the penis is generally markedly curved. The anterior part of the urethra is generally represented by a shallow groove, which stands out as a taut band when an attempt is made to straighten the penis. At the bottom of this groove the follicles of Littré are seen. The opening of the urethra is bounded below by a thin crescent of skin and is often definitely constricted (see Fig. 1). This should be compared with Fig. 2, which shows the condition of the same patient at the age of 19.

4. There is a complete cleft of the scrotum and the urethra opens in the perineum.

Cases of this last group are often mistaken for females, and in infancy the resemblance is more marked than in older children. The redundant prepuce is continued down on either side resembling the labia minora. A rudimentary vagina may open between the urethra and the anus, and there are, in fact, few, if any, imaginable deformities which have not been described. It is important to distinguish between a male with a cleft scrotum and a female with a hypertrophied clitoris. In many cases the diagnosis is simple, but in others this may be difficult or impossible in the absence of a microscopical examination of the essential sex glands. Cases of doubtful sex should be carefully examined, preferably under an anæsthetic, and if at the end any doubt remains, the old rule—namely, to bring the child up as a male—is, in my opinion, wise.

Undoubted cases have been reported in which ovarian and testicular tissue have been present in the same individual, but it is extremely doubtful whether any individual has ever been bi-sexually potent. There are many old and curious stories, but I doubt whether these would stand scientific criticism. Of course, there are many cases in which the deformity has led to sexual irregularities, but these cases seem to me to afford only one more reason, if one were needed, of the necessity for endeavouring to establish the sex of a child in a doubtful case, and if possible to restore the external parts to as close a resemblance to the normal as possible. The vast majority of cases are, however, psychologically normal, and when abnormality occurs it is quite possible that it is secondary to the deformity.

RE-REGISTRATION OF CASES OF SEX ERROR.

In any case in which an error has been made about the sex of a child the parents or guardians should not neglect to re-register the birth of the child. A name can be legally changed, or at least added to, at confirmation, it being uncertain whether the original Christian name is cancelled or not.

I am indebted to the Registrar-General for the following statement as to the procedure to be followed in re-registering a child :—

> "In such cases application for the re-registration of the birth should be made to the Registrar-General accompanied by the particulars of the case by the medical practitioner who has examined the child. If this is satisfactory the Registrar would be instructed to re-register the birth on the information of one of the parents or other informant qualified under the Birth and Death Registration Act, 1874. Should there be no qualified informant available, then the original entry would be corrected on the authority of a statutory declaration, made by two persons cognisant of the facts, one of whom would be the medical practitioner."

THE OPERATION.

The essential characteristics of all these types of deformity are the same, they only differ in degree, and the operation which I describe is suitable for all of them. I first published this operation in THE LANCET (1913, i., 447), but at that time I had only operated upon a few cases and was unable to speak definitely as to the results. I have now operated upon over 20 cases and have been able to see many of these after the lapse of a number of years. I have operated upon all degrees of severity and wish to take this opportunity of presenting my results to the profession.

The operation of constructing the ureter is carried out on the lines devised by Duplay. This operation is perfectly sound in principle, but is, as a rule, impracticable for the simple reason that there is not enough tissue to construct the ureter and clothe the penis in skin. It is to prepare the way for a final Duplay's operation that the preliminary stages to be described are undertaken, and their object is to convert the redundant preputial hood into two flaps along the sides of the penis, including its glandular portion, which can be utilised to line the new urethra and to cover it with skin. This is carried out in three stages, with intervals of three months between. I have found that the best age to operate is about 4—that is, when the parts are sufficiently large to handle and before there is any special sensibility in the organ. Also, as this operation promotes growth, it is essential that it should be performed well before puberty.

Descriptions of Figures 1 to 10 on Illustrative Plate.

FIG. 1.—Infant showing the urethra opening at the root of the penis, the curved penis, and the hooded prepuce.

FIG. 2.—The same patient at the age of 19. Six years after the operation had been completed and the wound completely healed a small fistula appeared. This gives him no trouble.

FIG. 3.—Passing the steadying sutures (stage 1).

FIG. 4.—Making the buttonhole.

FIG. 5.—The urethra has been dissected up, the buttonhole cut across, and the incisions into the halves of the buttonhole marked out (stage 2).

FIG. 6.—Method of making incisions into the halves of the buttonhole.

FIG. 7.—Opening up the incision shown in Fig. 5.

FIG. 8.—Suturing the flaps over the raw surface.

FIG. 9.—Condition at the end of stage 2.

FIG. 10.—The incision for the final stage (stage 3).

The First Stage of the Operation.

The first stage is to make a buttonhole in the preputial hood. The simplest way of doing this is to pass a couple of stitches from the mucous or glandular aspect of the prepuce through to the upper or dorsal side. These are placed about 1 cm. apart and 1 mm. from the corona. (Fig. 3.) Holding these sutures taut on either side so as to steady the part, the whole thickness of the prepuce is then transfixed with a scalpel between the two stitches, making an incision extending to within 1 mm. of these and keeping about 1 mm. away from the corona. (Fig. 4.) The end of one stitch is then pulled through the slit and tied to its other end, thus closing the incision at one end by suturing the skin to the mucous membrane. The same procedure is carried out at the other extremity of the wound and a few points of suture are added in between. The slit in the prepuce is thus sewn round like the buttonhole in a coat. It is immaterial how the incision is made in the prepuce, but the tissues are so loose that it is rather difficult to make a neat buttonhole, and the method which I have just described will, I think, be found the best way of doing this.

As a result of this proceeding the prepuce is partially dissected away from the corona, and its main blood-supply—from the dorsum—being cut off, a collateral circulation is induced from the sides which increases its viability in the subsequent stages of the operation. Should the opening of the urethra be at all constricted it should be slit backwards at this stage and a suture passed, uniting the skin and mucous membrane at the scrotal end of the incision.

Three months is allowed to elapse before the next stage of the operation is undertaken, to allow the wound to heal soundly and to allow for the absorption of the scar tissue.

FIG. 1.

FIG. 2.

FIG. 3.

FIG. 4.

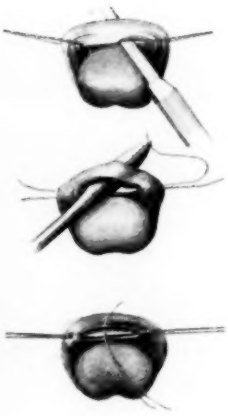

FIG. 5.

FIG. 6.

FIG. 7.

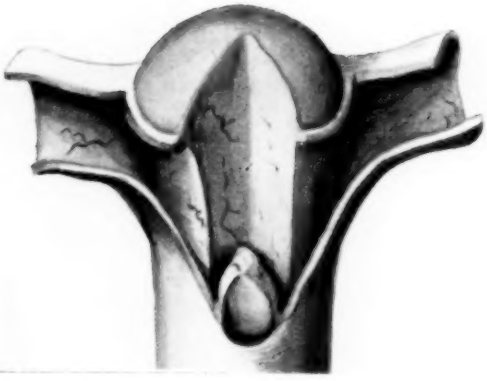

FIG. 8.

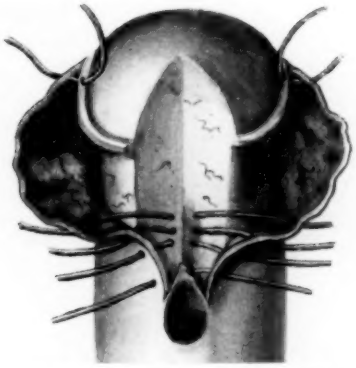

FIG. 9.

FIG. 10.

MR. ARTHUR EDMUNDS: PSEUDO-HERMAPHRODITISM AND HYPOSPADIAS.

Figures 11 *to* 16 *appear in the text. See also reverse side of plate.*

FIG. 17.

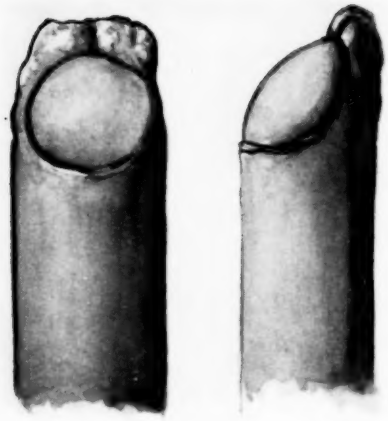

FIG. 18.

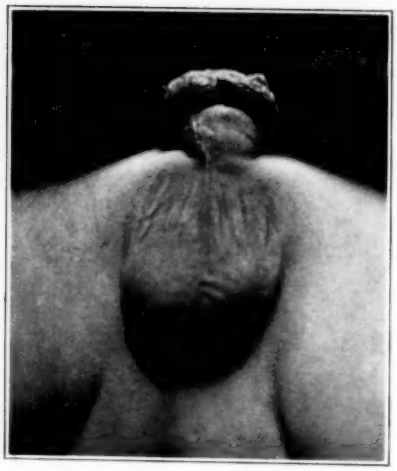

FIG. 19.

FIG. 20.

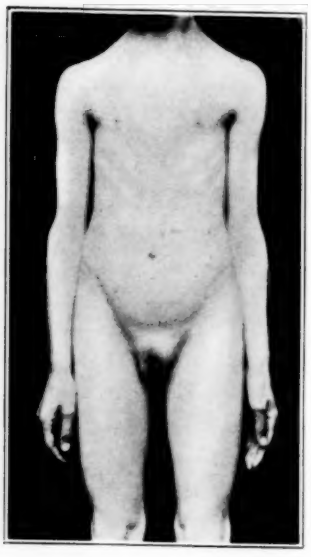

FIG. 21.

FIG. 23.

FIG. 22.

FIG. 24.

The Second Stage.

So far no attempts have been made to straighten the penis, but this must now be considered. An incision is made along either side of the urethral groove, the two incisions being joined in front in the substance of the glans. The malformed and contracted urethral channel with its rudimentary corpus spongiosum is now dissected up towards the scrotum (Fig. 5), and it will be found that the whole of the urethral groove, originally about three-quarters of an inch in length, shrinks up into an insignificant little knob of tissue. Even in those cases where there has been no curve of the penis it will be found that the urethra shrinks up to much the same extent, and at the close of this stage it is not possible to say whether the penis was originally curved or not.

This stage of the operation must be done very thoroughly so that the organ is completely straightened, and any bands of fibrous tissue which hinder this should be freely divided or removed. As a rule the dissection of the urethra meets the case entirely, but a few transverse incisions on the under surface of the raw area from which this urethra has been lifted may be necessary. This part of the operation is made much easier by passing a guide stitch through the glans to hold everything taut and steady. I have omitted this from most of my drawings for the sake of simplicity, but in actual operating it is nearly always necessary. It will be noticed that the raw area from which the urethral groove has been dissected up is not only longer but considerably broader than one would have expected. Only in exceptional cases is it advisable to remove any tissue in dissecting up the urethral groove. In one case this seemed wise, and a section showed that there was actually a certain amount of erectile tissue in the fragment of tissue taken away.

The preputial half of the buttonhole is next cut across in the long axis of the penis. The two cut surfaces spring apart and in this way two lateral projections are produced which stick out on either side of the glans. The incision which was made to dissect up the urethra is now carried around the corona from the point which would have corresponded to the attachment of the frenum in normal cases to the centre of the coronal attachment of the lateral projections, leaving about 1 mm. of skin attached to the corona. From the termination of these incisions two others are carried out, one on each side, into the lateral flaps dividing the skin on the upper surface only. This may be easily accomplished by transfixing the flap with a sharp-pointed knife as shown in Fig. 6. By a certain amount of dissection and a certain amount of stretching of the lax subcutaneous tissue the whole of this incision can now be opened up and in this way an irregular flap is produced on either side of the penis, which will be brought down to cover the raw surface from which the urethral groove has been dissected up. (Fig. 7.)

It is, perhaps, a little difficult to understand the method of formation of this flap, and indeed it would be impossible to construct it were it not that the tissue in this situation is extremely lax and can be stretched without division in almost any direction. One is reminded of the way in which a cook stones a raisin. The little shrivelled-up dried fruit has one side split open, and after the stones have been removed, easily becomes pulled into a couple of discs about the size of the grape before it was dried. One is doing somewhat the same sort of thing with these tissues. When the lateral flaps are dissected up they can be spread out to form a very considerable extent of skin.

The position, therefore, at this stage is that we have a large raw area on the under surface of the penis, and at the other side a wide irregular flap with which to cover this in. The covering-in process is commenced at the opening of the urethra. (Fig. 8.) The first stitch, passing from side to side, picks up the tip of the shrivelled remains of the urethral groove on its way. The succeeding stitches are passed in such a way that the flaps are held down towards the urethral opening. The stitch is passed, not only through the flaps, but picks up a small piece of tissue from the mid-line of the raw surface from which the urethra has been dissected up, so as to anchor the flaps firmly in this position. The sliding of the flaps downwards is obtained by placing the stitch-holes more widely apart in the skin flaps than in the bottom of the urethral groove. This is continued until the whole of the raw area up to the tip of the glans has been covered in.

In this way the whole of this raw area on the under surface is epithelialised and the breadth of the organ increased very materially. A few stitches are inserted along the line of the corona and this will generally be found to entail a folding of the flap, leaving two raw edges which are then sewn together. (Fig. 9.)

As the result of the two stages of the operation which have now been performed, the penis is straight and very considerably broadened. This increase in breadth is due to the two flaps of skin which, originally derived from the prepuce, have now been transplanted on either side of the middle-line. It is now possible to perform Duplay's operation satisfactorily. One point should be remarked. The penis at this stage grows considerably, owing probably to its having been released from the flexed position.

Third Stage.

After a lapse of three months the final stage of the operation can be undertaken. A rubber catheter of as large a size as will conveniently pass into the urethra is inserted for 2 or 3 inches. A stitch is then passed in the mid-line, through the tissues of the glans, and tied with a reef knot so as to make a loose loop. The ends of the stitch are then tied tightly round the catheter and cut short. By pulling on the catheter the organ is stretched out and the instrument made to lie along the course of what is to be ultimately the new urethra. Duplay's operation is then carried out with one or two minor modifications. Starting at the scrotal end an incision is made on either side of the catheter through the tissues, making two flaps of skin wide enough to meet easily over the instrument. (Fig. 10.) These are joined posteriorly around the urethra, keeping about an eighth of an inch away from the opening. It is as well not to continue the incision very far forward at first, but to prolong it towards the glans as the sutures are inserted.

It is also a good plan to make one of the incisions a little further away from the catheter than the other, so that the line of sutures does not fall strictly in the mid-line and does not correspond exactly to the line of sutures in the skin. It is highly important for this line of sutures to use very fine needles and very fine catgut. There is no great tension on the stitch, and if holes are made by coarse sutures they very readily become fistulous tracts. 000000 catgut, and the finest

Descriptions of Figures 17 to 24 on Illustrative Plate.

FIG. 17.—Diagram of the final result.

FIG. 18.—Result of operation soon after its completion, showing the large amount of redundant tissue, which is often present at first.

FIG. 19.—The same patient as in Fig. 18 at the age of 18; the redundant tissue has all disappeared.

FIG. 20.—Pseudo-hermaphrodite-sex error, before operation.

FIG. 21.—External genitalia of same patient. A catheter has been passed into the urethra and the prepuce held up.

FIG. 22.—The same patient after operation.

FIG. 23.—Result in a child in whom the urethra opened half way down the penis. The meatus is terminal and the penis rather large for the child's age.

FIG. 24.—The result in a patient age 24.

curved intestinal needle that will carry it, should be used.

The first—that is to say, the most posterior—stitch is inserted as follows. The needle is passed through the flap (which should not be dissected up more than is absolutely necessary) from the surface, which is towards the catheter, to the raw side. (Fig. 11.) That portion of the tissue destined to line the urethra which lies posteriorly to the urethra is detached with a scalpel, and a stitch passed through this flap picking up a small piece of the subepithelial connective tissue but not penetrating the mucous membrane. The stitch is then completed by being passed from the raw to the epithelial surface on the other side. When the two ends of the suture are tied together it will be found that the epithelium is turned in both posteriorly and on either side, and that the knot of the suture lies in the urethral channel which is being constructed.

The succeeding stitches, which should be about one-eighth of an inch apart, are inserted in the same way—i.e., (*a*) epithelial to raw surface, (*b*) across the wound to the other side, (*c*) then raw surface to epithelium, and tied so that the knots are inside. As the sutures are inserted the lateral incisions are prolonged forwards bit by bit and sutured together. In this way the lining of the new urethra is constructed until the glans is reached. Then the incision should branch off shortly for about a quarter of an inch at right angles to the middle line. The object of this is to prolong the new urethra a little beyond the edge of the glans so as to allow for subsequent shrinking. (Fig. 12.)

The skin is now sutured. If owing to the unequal size of the flaps, the suture line in the newly formed urethra lies a little to the left, the line of suture in the skin will lie a little to the right. The skin incision to be sutured will be found to be, not a long V, but rather a long U, and the first part of the incision should be closed and sutured so that the suture line for the first two or three stitches passes transversely across the penis—that is to say, one side is sewn to the bottom of the U. (Fig. 13.) If this has been done the line of sutures in the skin will not correspond to the deeper row of sutures, but cross them, usually in a sort of S-shaped line. (Fig. 14.) The suturing is continued until the whole of the cutaneous covering of the urethra has been formed. It is highly important in this, as in the preceding suture, to use the finest sutures possible. The needle that I employ is a No. 16 crewel needle, which is the finest I can buy, and the sutures are of "ophthalmic" silkworm-gut. It may be found necessary to dissect up the skin a little, but it must be remembered that the more this is done the greater risk there is of sloughing of the flaps. As a matter of fact the subcutaneous connective tissue is so lax that practically no dissecting or undercutting is necessary.

The vertical mattress stitch which I advocated several years ago is a great improvement upon the ordinary interrupted stitch. The needle is inserted about a quarter of an inch from the cut edge of the skin, passing from the cutaneous to the raw surface, picking up as much of the subcutaneous tissue as possible, then it is passed into the opposite flap, emerging on its cutaneous surface. The needle is then brought back, picking up the extreme edges of the wound as lightly as possible and the suture tied. In this way the epithelium is accurately approximated and the subcutaneous tissue also brought together, obliterating dead space to a great extent. By this method it is also possible to get a good grip of the tissues without sacrificing accuracy. The catheter is now removed.

The wound is then dressed and the patient returned to bed. As a dressing in these cases I have usually employed boric lint which has been boiled in boric lotion. Strips of this are wrapped round the penis and the whole covered in a square piece of the same material. A piece of mackintosh is laid over the lint and the child is pinned up with an ordinary square. Whenever the child passes water the parts are bathed up and the dressing changed.

After the first two stages the child experiences but slight inconvenience. The parts are slightly sore but the patient makes but few complaints. After the third stage the passage of urine for the first time along the new channel is a little painful and it is sometimes difficult to make the child do it. However, a little persuasion on the part of the nurse has always overcome the difficulty and I have never had to pass a catheter, a proceeding I should be loth to carry out for fear of damaging the suture line.

Many cases heal up straightaway, and in all cases the glandular portion of the urethra has healed by first intention. Since I have employed the vertical mattress stitch, and the exact technique of the suture of the skin which I have here described, my results have improved from the point of view of the healing of the wound. But in several cases I have had small failure of healing, rarely larger than would admit a probe, and these have been closed at subsequent

FIG. 11. FIG. 12. FIG. 13. FIG. 14.

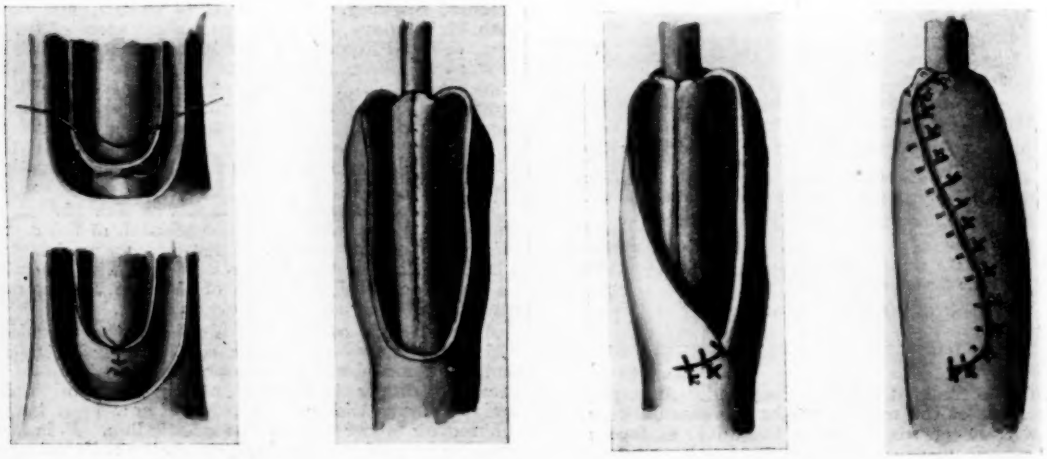

FIG. 11.—Lower end of the incision shown in Fig. 10. Catheter in the urethra. The method of passing the sutures is shown.
FIG. 12.—The urethral tube is completed.

FIGS. 13 and 14.—The closure of the skin. The method of suture described in the text.

operations. Usually I have succeeded at the first attempt, but I have had to make more than one attempt to close a fistula. I have not met with any case in which I have abandoned a fistula as incapable of being closed.

To close a fistula an incision is made round the opening; the skin retracts leaving a small raw area, in the middle of which the mucous membrane of the

FIG. 15.

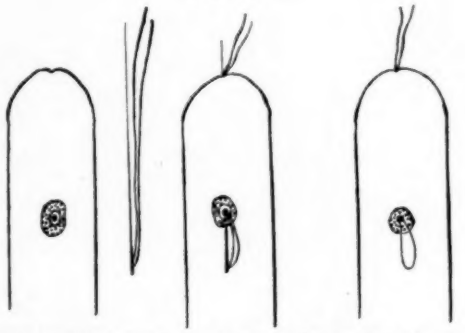

FIG. 15.—The closure of a fistula. The method of suture described in the text.

new urethra can be seen. If the opening into the mucous membrane is of any size it is easy to pass the sutures in the manner already described so that the knots come to lie inside the urethra. If, however, the opening is small, or when one arrives at the insertion of the last stitch, the following manœuvre is useful. (Fig 15.)

Thread a long needle with fine silkworm-gut and pass it, eye foremost, from the meatus through the fistula, seize the thread, and withdraw the needle. Next, holding the loop out of the way towards the glans (Fig. 16) pass the suture in the manner already described—i.e., from mucous membrane to raw surface and thence again to the mucous membrane; tie it. The knot, even though the suture has been passed correctly, will usually not fall back into the urethra, but by threading its ends through the silkworm-gut stitch these can easily be drawn into the urethra. The skin can be closed by turning a small flap of skin over the raw area. It will not be found satisfactory to simply pare and suture the opening.

In none of these cases have I had any clinical sepsis, although it is, of course, almost certain that such

FIG. 16.

FIG. 16.—Enlarged figure of the fistula to show how the knot of the suture is pulled into the urethra.

wounds do not remain aseptic from the bacteriological point of view. I have never found there was any need to perform either suprapubic cystotomy or perineal drainage of the bladder. These operations are by no means trivial and must inevitably leave the bladder a little less free, and perhaps the seat of a certain amount of infection. I therefore deprecate strongly the advice given by certain surgeons that suprapubic cystotomy should be undertaken in all these operations. It is an operation not devoid of risk and is entirely unnecessary. I have found that it is better not to leave a catheter tied in.

Beyond the actual fashioning of the flaps it is my belief that success depends upon accuracy of sewing, and that this in its turn depends upon the use of very fine needles and sutures. The ordinary instruments that are used for abdominal section and most major operations are as inapplicable for these cases as they would be for ophthalmic surgery.

FINAL RESULTS.

In the successful cases, when healing is finished, the meatus lies at the lip of the penis looking slightly upwards (Fig. 17), and the general appearance is that of a child who has been carelessly circumcised, a lot of redundant mucous membrane being left. At one time I thought it might be worth while to remove this at a subsequent operation, but examination of several of my patients a good many years after the operation had been completed proved that the loose tissue is taken up in the process of growth so that in adult life the child looks as if he had been circumcised, not clumsily but neatly. The disappearance of this redundant preputial tissue is very clearly seen by comparing Fig. 18, which shows the result of this operation soon after its completion. with Fig. 19, which shows the patient at the age of 18.

The operation which I have just described is appropriate for all degrees of the deformity, even for the perineal type. Many of these cases are mistaken for females, the penis being but little larger than a clitoris. I am strongly of opinion, however, that if these cases were operated upon early in life—for example, at the age of 4 years—the penis, released from its flexed position, would grow considerably.

I have operated upon two cases of mistaken sex successfully. I am indebted to Dr. Gutch, of Ipswich, for the case shown in Fig. 20 This patient passed the first 14 years of his life as a girl, but the descent of the testes, producing a swelling in the groin, revealed the true sex. Fig. 21 shows the appearance of the external genitalia, the prepuce is held up, and a catheter is passed into the opening of the urethra.

I operated in exactly the way which I have described above, making first a buttonhole in the prepuce, and then, after the passage of three months, freeing the urethra and turning inwards the flaps of skin. The presence of labia minora was a help, as these provided additional tissue at the sides. I did one thing, however, which is not necessary in the lesser degrees. At the root of the penis there was a fold of skin corresponding to the skin which so often appears between the labia majora in girls. This I divided transversely, sewing up the wound so made, in the long axis of the penis (like a pyloroplasty). This gave an additional length to the penis. Three months later I completed the operation and constructed the urethra in the usual way. I had some trouble with fistulæ, but these were closed a few weeks later. The final result is shown in Fig. 22. The penis is straight with a terminal meatus. Under the anæsthetic towards the end of his treatment he had a partial erection in which the penis measured 2½ inches in length. In the flaccid condition it is long enough for him to pass his water in the usual way. Psychologically he is a normal boy.

Fig. 23 shows the result in a child, aged 6, in whom the urethra opened half way down the penis. The organ is quite normal and is, indeed, rather large for his age. Fig. 24 shows the result in a case who was operated on rather later than most of the others—namely, when 14 years old. At the time the photograph was taken he was 24 years old. He has a penis which is perfectly normal and was not even noticed by the examining medical officer when he was called up for service in the war.

These cases are not exceptional, but usual with this procedure, and I believe that similar good results could be obtained in practically every case.

RIGHT ILIAC FOSSA PAIN.

An Opening Paper read before the Medical Society of London on Feb. 8th, 1926,

BY H. W. CARSON, F.R.C.S. ENG.,

SURGEON, PRINCE OF WALES'S GENERAL HOSPITAL, LONDON.

Nearly 19 years ago, on April 22nd, 1907, our President opened a discussion in this room on "Surgical Affections of the Right Iliac Fossa which Simulate Appendicitis."[1] His opening remarks and the subsequent discussion were confined practically to acute conditions, and the ground was thoroughly covered except that two or three disorders which we now recognise as liable to diagnostic errors were not referred to. I may mention the abdominal symptoms in chest troubles, the acute pyelitis of pregnancy, and perforated duodenal ulcer. I shall exclude from my remarks any recapitulation of matters already dealt with in that discussion, and confine what I have to say to less acute and to chronic conditions. And I do this the more readily because I believe that acute conditions are much more certainly differentiated, and that even if operation is performed with a faulty diagnosis, the operation is probably essential and the real disorder is discovered and remedied. In chronic cases the outlook is very different, and if diagnosis is not very exact, and if the correct treatment is not instituted, not only is there a failure to cure, but the patient's sufferings may be aggravated.

Although only some 25 years have passed since it was first suggested that chronic inflammation of the appendix might be the cause of continued abdominal discomfort and ill-health, the idea so seized on the imagination of the profession that even to-day it is practically impossible for any of us to avoid thinking of the appendix in every case when a patient comes to consult us for right iliac fossa pain. It was Sir Frederick Treves who was really responsible for putting the idea into our heads. In the Cavendish lecture on Appendicitis, delivered before the West London Medico-Chirurgical Society,[2] he says:—

> "There is a third class of case, abiding pain in the right iliac fossa which may continue for months and may or may not be associated with acknowledged attacks of appendicitis. . . . . These patients are never well. They are the subjects of unending digestive disturbances, of colics, of constipation, and of occasional severe pains. There is often tenderness in the right iliac fossa with a sense of weight and dragging. . . . ."

He goes on:—

> "Removal of the appendix is also to be recommended in chronic appendicitis in those examples in which there are no actual attacks but in which there is abiding discomfort in the right iliac fossa with exacerbations of uneasiness."

It is true he qualified this by saying that "the removal of the appendix is not a panacea for all ills, nor even for all those manifold pains that seize upon the lower segment of the abdomen," but I hope I shall be able to show you that his third class of case is not appendicitis at all, and that treatment by removing the appendix will fail in a high proportion of cases.

Muscle Strain as a Causative Factor.

One of the common causes of right iliac fossa pain is muscle strain, and it is seen in two classes of patient, the young school-girl and the middle-aged athletic man who is giving up his sports and beginning to put on weight. The school-girl strains her oblique muscles owing to a vigorous pursuit of net-ball or lacrosse (both games entirely unsuited to young girls, as they demand considerable exertion with the arms held above the head), the man's pain is due to a commencing inguinal hernia. The girl's pain may easily be diagnosed as appendicitis, as there is often tenderness on palpation. The removal of the appendix in such a case might effect a cure, as it would prevent her playing those games for the rest of the season, but it is rather a drastic method of securing rest for tired muscles.

Causative Factors in the Urinary Tract.

A frequent cause of right iliac fossa pain is some trouble in the urinary tract. A stone in the ureter is, perhaps, the most likely to be overlooked. I am constantly reminded of the possibility by the fact that I have upon my desk at home a silver inkstand suitably inscribed, which was presented to me years ago by a grateful patient after I had removed his appendix for what I thought good and sufficient reasons. He went for a sea-voyage to convalesce, and passed a very small ureteric stone which he sent to me with a cheery letter. It is said that a ureteric stone should always be recognised, because the pain is unilateral, there is often frequency of micturition, the urine may be abnormal, and the stone is discoverable by the X rays. But all the same mistakes occur, and I can show you the X ray of a large kidney stone which gave symptoms leading to the removal of the appendix. It is sometimes very difficult to differentiate by the X rays between ureteric stone and tuberculous mesenteric glands without passing a ureteric bougie, not always a simple task in a child. R. F. O'Neill[3] stated that 25 per cent. of the patients in the Massachusetts General Hospital with ureteral calculi had already had operation on the appendix or other abdominal organ before a correct diagnosis was made. Perhaps we shall hear what the proportion is in this country.

Tuberculous Mesenteric Glands.

Another cause of right iliac fossa pain which may lead to errors in diagnosis is tuberculous glands in the mesentery. I read a paper before the Medical Society on this subject in 1918[4] and tried to lay down a definite symptomatology which, I believe, has been now generally accepted. Since that date I have seen many more cases, and I do not think that further experience has led me to modify in any way the views I expressed at that time.

Tumours of the Colon.

As I have something to say about Treves's third class, I will merely refer shortly to tumours of the colon and their effect in causing right iliac fossa pain. There will, of course, be those cases of a tumour of the right colon, whether it be tuberculous or cancerous. Ileo-cæcal tuberculosis has been admirably dealt with before the Medical Society by Prof. Hartmann in December, 1906,[5] and so complete was his study of the subject that this presentation, though made 19 years ago, is still accepted as the last word on this subject. Both this disorder and cancer of the right colon give rise, in addition to right iliac fossa pain, to a tumour which is in close relation with the anterior abdominal wall and is therefore easily detected; but cancer in the left colon often gives rise to right iliac fossa pain owing to back pressure and distension of the cæcum when the growth itself cannot be felt. Pain in the right iliac fossa with a distended cæcum in a constipated patient over 50 should always make one suspect a stricture in the left colon.

Right Iliac Fossa Pain of Obscure Ætiology.

I will not refer to certain other causes of right iliac fossa pain, such as colitis, diseases of the spine, locomotor ataxy, and tumours of the spinal cord. Let me discuss these obscure and difficult but very numerous cases which may be included under Treves's third class. It is not too much to say that cases of this condition can be found in every medical and surgical out-patient clinic on any day, and they represent an enormous amount of suffering and disability and their cure is still a problem. The sufferers are generally women between the ages of 20 and 40. They are of spare build and have a characteristic carriage due to certain skeletal defects.

[1] Med. Soc. Lond. Trans., xxx., 259.
[2] Brit. Med. Jour., 1902, i., 1589.
[3] Jour. Amer. Med. Assoc., lxxvii., 418.
[4] Med. Soc. Lond. Trans., xli., 220.
[5] Ibid., xxx., 334.

The head is carried forward, there is slight dorsal kyphosis, the ribs are close together and form an over-acute angle with the rib cartilages, resulting in a flat, narrow chest with a reduced lower outlet. The lumbar concavity is abolished, and the sacrum articulates with the spine almost in a direct line instead of at an angle of 30°. They complain of constant dragging pain in the right iliac fossa, increasing as the day goes on and relieved by recumbency. They have constipation, flatulence, a poor appetite, loss of energy, and symptoms of nervous instability. They complain of joint pains, of neuralgia, of headaches, and nausea. Long ago Moynihan ungallantly divided women structurally into tigers and cows. These are the tigers, and very poor tigers they are. The abdominal wall is poorly developed and many points of tenderness are found in the abdomen, the right iliac fossa is especially sensitive, and often the cæcum is too easily palpable and the kidneys are frankly prolapsed. X ray examination after a barium meal shows ptosis of the stomach and large bowel with delay in emptying. Many of these cases when first seen have already had the appendix removed without relief.

Now what is the cause of right iliac fossa pain in these cases? Obviously it has to do with posture, for it is relieved when the patient lies down. There are two structures in the area which are more mobile than they should be, the kidney and the right colon. Which is it? A good many years ago a mobile kidney was looked upon as an object for attack, but one rarely hears now of nephropexy, an operation that at one time was frequently done. Why has it been abandoned? I think the answer must be that it was realised that the kidney was only one among many displaced organs, and that fixation of this one organ did not bring relief. Is it, then, the right colon? If we examine the right colon in these cases we will find one of two conditions (probably stages in the same condition), either a thin veil of highly vascularised membrane stretching from the parietal peritoneum across the right side of the mesocolon on to the intestine, or a tougher membrane situated rather higher up between the cæcum and the hepatic flexure which may constrict the colon and even bind the ascending colon and the first part of the transverse colon firmly together. The cæcum itself is free. Is it possible that the thin membrane in the first case is sensitive when dragged on by the mobile colon in the erect posture, or that the thicker membrane will, in the second case, so constrict the lumen of the ascending colon when the patient is erect that the cæcum becomes distended and that pain results from spasm of the cæcal musculature in the effort to empty itself? And what of the appendix? Does it show signs of back pressure? Is it distended? Not at all. The appendix is commonly rather small and atrophic and free from adhesions. The cæcum itself is changed. It is thin, bluish in colour, and its walls show microscopical changes. But would these alterations cause pain? There is often a triangular-shaped membrane in these cases on the right side of the mesentery of the ileum just proximal to the ileo-cæcal junction, which may be sufficiently developed to constrict or hamper the movements of the lower ileum. Is this drag on the ileum the cause of the pain? The only answer to these questions is that operations to release these bands and to fix the ascending colon have not met with the success they should have had if they were the sole cause of the trouble.

Differential Diagnosis of Chronic Appendicitis.

But least of all has success attended the removal of the appendix. As long ago as 1916 Connell [6] gave an account of 87 cases who had had the appendix removed for pain in the right iliac fossa without relief; 73 of these cases were women; general ptosis was present in 80; 66 relapsed within 12 months, and of 27 who were subjected to a second operation only 9 showed any improvement. In 1924 Dr. H. W. Bettmann,[7] of Cincinnati, in a paper on Diagnostic Errors leading to Uncalled-for Appendectomy, drew so lurid a picture of the after-results of the operation that THE LANCET had a leading article on it.[8] His conclusions were that the majority of those failures were due to faulty diagnosis, resulting from want of care in examination, and that there was too great a tendency to consider that a case should be operated upon if medical treatment did not effect a cure. While he agrees that the great majority of these removed appendices showed microscopical evidence of disease, from the patient's point of view a clinical cure is more important than the removal of a diseased organ. I think that we will all agree that there is such an entity as a relapsing appendix where you get a history of one or more severe attacks with minor repetitions divided up by intervals of complete health, but is there such a condition as latent appendicitis, and how can it be recognised? I believe it is going too far to say that appendicitis should never be diagnosed unless there has been an acute attack, but we must dismiss from our minds the idea that chronic appendicitis can be diagnosed by right iliac fossa pain alone.

The true symptoms of chronic appendicitis are those of the so-called appendix dyspepsia. The pain is felt in the epigastrium or umbilical region, it is excited by taking food—and particularly some kinds of food—and it is never relieved by recumbency. Nausea is a very common symptom, indeed it is more common in appendix dyspepsia than in any other chronic indigestion. There is often an associated pain in the right iliac fossa, but this is never the only symptom. Nutrition is not impaired nor is there loss of appetite, nor, as a rule, constipation. This picture is in strong contrast to the other type where there is constipation, loss of appetite and energy, deficient nutrition, certain signs of nervous instability, and constant dragging pain in the right iliac fossa relieved by rest. One must not, of course, be carried too far in a desire to explain these dyspepsias as due to appendicitis, yet it is a common thing for every surgeon to be called upon to operate on gastric and particularly duodenal ulcer, and sometimes for gall-stones, in patients who have had their appendix removed without relief. One source of error is that some surgeons remove the appendix through a minimal incision so that there is no chance of examining other organs. I am sure that if there is any reasonable doubt about the diagnosis it is better to open the abdomen in the epigastrium so that the stomach, duodenum, and gall-bladder can be thoroughly examined. It is quite easy to remove the appendix through this incision.

X Rays in Diagnosis.

Now one word about the value of an X ray examination after a barium meal. As a means of diagnosing appendicitis I believe it has little value. I do not think the radiologists themselves are agreed as to whether visualisation of the appendix shows that its peristalsis is so altered that it cannot eject the barium and therefore the appendix is diseased, or whether failure to visualise the appendix shows that the lumen is so obstructed that barium cannot enter and therefore the appendix is diseased. I am sure that tenderness on pressure on the visualised appendix is open to misinterpretation as it overlooks the effect of pressure by a heavily leaded glove on the eleventh nerve. And with regard to ptosis, we must remember that Dr. Ryle has proved most definitely that all ptosis is not pathological. But with these reservations we must admit that X ray examination is of the greatest assistance in the diagnosis of the causes of right iliac fossa pain and is, indeed, invaluable.

I will conclude by saying that in my opinion pain confined to the right iliac fossa should not even be considered as due to appendicitis, especially in the absence of a previous severe attack, until the most painstaking investigation has disproved other possibilities.

[6] Jour. Amer. Med. Assoc., lxxii., 335.

[7] Ibid., lxxxiii., 1216.

[8] THE LANCET, 1925, i., 137.

CŒLIAC DISEASE: ITS DEFINITION AND DIAGNOSIS.

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To give an entirely satisfactory definition of cœliac disease will not be possible until we know the actual cause of its essential feature, the mal-absorption of fat; but this is not to say that the definitions in use could not be improved. To my mind they err both in what they put in and in what they leave out. They are apt, for instance, to stress *diarrhœa alba* as the diagnostic sign of the disease. Such degree of emphasis is too great, for this symptom may be absent, as in the non-diarrhœic type I have described,[12] and in the classical (diarrhœic) type it only recurs from time to time. In this way there tends to arise the misconception that cœliac disease is one which shows periods of activity and periods of quiescence, whereas in reality the disease remains stationary for many years and the severity of its symptoms depends upon the amount of fat allowed in the dietary. This misconception is further encouraged by the use of the word "relapse" in definitions of this disease. It is no more accurate to speak of relapses here than in a case of diabetes; in either case it is a faulty diet which causes the renewal of symptoms without any necessary change in the disease itself.

Thus far I think I shall carry with me those who have carefully watched cœliac cases, especially if they have controlled their observations by repeated fæcal analyses. But I am anxious to go a step further and to gain acceptance for a definition of the disease which shall aim at excluding certain conditions to some extent simulating it. My point is that the term cœliac disease should be restricted to those cases which show, as the primary cause of all their symptoms, the typical mal-absorption of fat. The purposes of the present paper are, first, to propose such a definition for the disease, and secondly, to mention what other conditions may simulate it and how they may be distinguished from it clinically. I have previously discussed this second matter from the pathological standpoint.[10]

History.—It may be helpful to glance back at the history of the disease[11] for a moment when it will be easily understood how some of the confusion as to what is and what is not cœliac disease has arisen. Described originally by Gee[7] in 1888, it was renamed "acholia" by Cheadle[3] in 1903. Both these authors regarded it as a digestive fault rather than as an organic disease, and this view has been maintained, for the most part, by English writers since. In Scotland Bramwell[2] published a series of papers from 1902–15 on some cases of what he called "pancreatic infantilism." His cases were ultimately accepted in England as instances of cœliac disease. Again in 1908 cœliac disease was rediscovered; this time by Herter[8] in America. He regarded his cases as due to a chronic enteritis and named the condition "intestinal infantilism." Not unnaturally it took some time for English physicians to realise that both Bramwell's and Herter's cases were the same as those originally described by Gee, and longer still for this fact to reach America and the text-books. Of recent years American writers have paid us the compliment of adopting the English title, but in the meantime cases of chronic enteritis and of pancreatic disease had been described by various authors and included under the title of "cœliac disease." It is largely in the hope of clearing away these misconceptions that the present paper is written.

Definition.—I suggest the following definition: Cœliac disease is a digestive disorder arising in infants and young children who show no evidence of chronic intestinal or other organic abdominal disease; it is characterised by a persistent mal-absorption of dietetic fat which causes large stools containing an excess of split fat, enlargement of the abdomen, lack of growth, and other symptoms.

Differential Diagnosis.—The characteristics of cœliac disease which are of most value in diagnosis are as follows: (1) the abdomen is enlarged but shows no signs of organic disease; the buttocks are often peculiarly small; (2) except in severe cases in very young children, the abdominal wall is not conspicuously wasted; (3) with the same exception general wasting is not so severe as is the lack of growth—the weight-for-age is much below normal, the weight-for-height is nearer the normal; (4) the excess of fat in the stools shows that fat wastage is out of all proportion to that of other foods, and it persists when the rest of digestion is normal; (5) on a strictly low-fat diet the amount of fat in the stools remains comparatively high, usually well over 15 per cent. of the dried fæces; (6) the fæcal fat is invariably well split, the neutral fat being usually much below 25 per cent. of the fæcal fat. The last three points display the essential features of cœliac disease.

I. *Diarrhœic (Classical) Type.*

This is the well-known variety of cœliac disease in which the patient passes large, pale, unformed, and offensive motions containing a great excess of fat (40–80 per cent. of the dried fæces), chiefly in the form of fatty acid crystals. The presence of this fat is liable to set up from time to time signs of intestinal irritation such as mucus in the stools. Careful watching of this type of cœliac disease will soon convince one's mind that these signs are transient, and definitely secondary to the failure in fat absorption.

The diagnosis of this type of cœliac disease may be discussed under various headings.

1. *Rickets.*—The catarrhal diarrhœa of rickety children is usually easily distinguished from the fatty diarrhœa of cœliac disease. In it the fat-loss is neither so excessive nor so persistent. Small children with cœliac disease may show the slighter signs of bony rickets, and at about the age of 7 "delayed" rickets may develop. There is also the well-known association between tetany and other spasmophilic signs in some cases of cœliac disease. But taking the condition as a whole cœliac children escape the grosser forms of rickets in a way which is on theoretical grounds remarkable.

2. *Tuberculosis.*—Abdominal tuberculosis may produce fatty diarrhœa in two ways: (*a*) by inflammation and ulceration of the intestine, and (*b*) by lacteal obstruction due to the presence of tuberculous glands. Both of these will be discussed later.

3. *Chronic Enteritis (Enteritic Infantilism).*—That cœliac disease is not due to a chronic enteritis I have argued elsewhere.[14] The difference between the two conditions is quite clear. In cœliac disease there is first a failure in fat absorption, as a result of which may arise a secondary and transient intestinal catarrh. In chronic enteritis there is a failure in the digestion of all sorts of foods, and the intestinal hurry and disease of the intestinal wall may be sufficiently severe to cause an excess of fat in the stools. The most obvious clinical proof of the truth of this is the different lines of treatment in the two conditions; the fat-free diet in the one, and the low, easily digested diet in the other.

Thus the recognition of chronic enteritis proceeds along such lines as these: The wasting of the patient is more severe than the lack of growth. The abdominal wall is usually thinned, and evidence of disease within may be felt, such as enlarged spleen or glands, or thickened intestine. The stools tend to show the presence of mucus and perhaps blood; the digestion of all foodstuffs is impaired, that of the fat with, and not out of proportion to, the rest. As the enteritis subsides so fat digestion improves and does not persistently remain defective as in cœliac disease. Finally, on a low-fat diet the percentage of fat in the stools drops to a lower figure than in the true cœliac case. It must, however, be noted that in some of the cases of persistent enteritis a secondary pancreatitis may develop, as in instances reported by

Poynton [20] and Still.[24] Presumably a pancreatic steatorrhœa might arise from this cause.

Some examples of severe and persistent enteritis will show a distinct degree of stunting of the growth. As Herter has already used the term "intestinal infantilism" for cases which were in reality examples of cœliac disease, I suggest that, if a title is needed for the group I am here discussing, the term "enteritic infantilism" would be accurate and clear beyond dispute.

The following types of chronic enteritis may give rise to difficulty in diagnosis:—

(*a*) Tuberculous enteritis. This can usually be distinguished from cœliac disease with fair ease by the evidence of enteritis in the stool combined with the presence of other signs of abdominal tuberculosis.

(*b*) Chronic enteritis of the dysenteric type. This group may show a clinical picture resembling cœliac disease rather closely; yet the essential characteristics of persistent enteritis are present and enable the distinction to be made between the two separate conditions. The following instance gives the salient features of this type:—

F. R., girl, aged 6. A long history with indefinite onset of diarrhœa with watery motions of varying colour, wasting, and failure to grow. In height she was 3½ in., and in weight 12 lb. below the average for her age. She was in hospital for three months, treated by colon lavage and bismuth and opium. Her abdomen was large; the spleen enlarged under observation. The stools contained mucus, pus, and blood; no true dysentery organisms could be found. At one time the motion appeared fatty, suggesting cœliac disease, and on analysis showed 30 per cent. of fat; but a later analysis showed only 5·3 per cent. Urinary diastase was equal to 10. She had many relapses with blood and pus in the stools, and was ultimately discharged in a quiet phase, having gained no weight. She died at home four months later.

Both Poynton [20] and Still [24] have published fatal cases seeming to me to belong to this type, which is evidently a much more fatal disease than is cœliac disease. In both these cases post-mortem examination revealed not only chronic enteritis but chronic pancreatitis secondary to it.

(*c*) Chronic enteritis due to *Lamblia intestinalis*. This infection has hardly met with the recognition it deserves as a cause of chronic diarrhœa in children. It may produce a slight deficiency in growth. The abdomen is often prominent but the general nutrition usually remains fair. The stools show, in addition to the lamblia cysts, much undigested food and mucus, without traces of blood. The amount of fat in the fæces may be above normal, but does not rise to the figures found in the diarrhœic type of cœliac disease. In a series of my cases of lamblia infection the percentages of fat in the dried stools were 25·6, 22·8, 24·0, 17·2, 24·8, 21·6, 10·6.

In these cases, then, a history of persistent diarrhœa with occasional pale stools and a tendency to diminished growth may very well suggest a diagnosis of cœliac disease. Indeed, I have known specimens of fæces several times sent for examination on this very supposition. Careful examination of the stool will clear up the difficulty, although I should mention that I have known two cases of cœliac disease to show a few lamblia cysts in their stools. I give two illustrative cases of lamblia infection.

K. J., girl, aged 12¼. Diarrhœa started in 1917 and has persisted for eight years. Abdomen is large, growth delayed, colour good. Height = 51¼ in. (normal about 56–7 in.). Weight in clothes = 64½ lb. Stool report: "Mucus, undigested food, lamblia cysts in very large numbers: does not look like a cœliac stool; fat = 17·2 per cent."

R. H., boy, aged 14. Diarrhœa since age of 3. At 9 he was first seen; he was then having four or more stools a day. He was 3 in. below the average height for his age. His dentition corresponded to that of a child of 7. The stool contained 10·6 per cent. of fat. At 14 years the diarrhœa was beginning to get less; two stools daily. He was growing more rapidly and had reached 58½ in. He appeared very strong and active; weight was 5 st. 12¼ lb.

It will be seen that the lack of growth is far less striking in these cases than in the true cœliac group.

(*d*) Enteritis due to irritant poisons. Forsyth [5] has reported a case of severe fatty diarrhœa in an infant of 8 months which was apparently due to the presence of boric acid in the milk. The symptoms ceased as soon as the cause was recognised and pure milk used.

(*e*) Sprue. A recent discussion on sprue and cœliac disease [26] showed clearly that they are different entities. I need not say more here than that sprue is so rare in children as to be unmentioned, if not unknown; while cœliac disease has never been described as originating in an adult.

4. *Pancreatic Steatorrhœa.*—The stool of pancreatic disease is large, pale, offensive, and oily. It contains a great excess of fat, and its diagnostic feature is the distribution of the fæcal fat; a large proportion, over 25 per cent. at least, is in the form of neutral, unchanged fat. This shows itself in the stool, if present in large amount, as separated oil or grease which congeals on cooling ("butterstühle"); if in smaller quantities the neutral fat shows under the microscope as oil droplets. This sort of stool does not occur in cœliac disease; there the fat in the fæces is invariably well split. Pancreatic steatorrhœa is a rare phenomenon in childhood, especially if we look for cases in which pancreatic disease has both been recognised during life and verified after death. Several groups of cases are known.

(*a*) Congenital steatorrhœa. This is perhaps the best recognised entity. The first case was described by Garrod and Hurtley[6] in 1912, the second by the present writer and Perkins.[16] A fæcal analysis in a third case has been reported by Mackenzie Wallis,[25] and another example has been shown at the Section of Diseases in Children of the Royal Society of Medicine.[19] So far as I know these are all the cases as yet recognised. The condition starts from birth and is almost certainly due to an inborn absence of pancreatic lipase, the other functions of the pancreas remaining unaffected. It is noticeable that these cases do not seem to suffer from stunting of growth. This is one of the proofs of what I have urged previously (THE LANCET, 1923, ii., 1099), that lack of growth in cœliac disease is not due to a mere fat deprivation, but is a toxic effect.

(*b*) Acquired pancreatic disease in children may occur, as mentioned above, as a sequel to chronic enteritis. It has also been attributed to inherited syphilis.

(*c*) Pancreatic infantilism. It has already been stated that Bramwell's cases, described under this term, must be regarded as examples of cœliac disease. It should be emphasised that the author himself referred to other cases which he could not distinguish clinically from his pancreatic cases except that they failed to improve under treatment by pancreatic preparations; these he thought were probably of the type then recently described by Herter under the name of "intestinal infantilism." Nevertheless, there do appear to be cases of true pancreatic infantilism. Perhaps the clearest clinical evidence is shown in the case reported by Moorhead,[17] in which steatorrhœa of the pancreatic type started at the age of 13. Mumford [18] published one of apparently the same type, which, however, ultimately attained to a normal height. Rentoul's case [21] is perhaps less satisfactorily proved. In none of these was there any verification after death. Bramwell,[1] on the other hand, reported a post-mortem on a case in which no clinical history was obtainable. The subject was a woman aged 20 showing very definite infantilism. Autopsy revealed the presence of mitral endocarditis and chronic pancreatitis. It is only proper to add that no ovaries could be discovered.

(*d*) A peculiar case has recently been published by Clarke and Hadfield.[4] In it steatorrhœa of the pancreatic type appeared to date from birth and there was stunting of growth. An autopsy at the age of 4 years showed that the gland substance of the pancreas was atrophied to about one-twentieth of the normal although the islets remained intact. If this

were truly a congenital case it is, so far as I know, unique.

5. *Lacteal Obstruction.*—Fatty diarrhœa has long been known to be produced by lacteal obstruction, although such a condition is a rare one. The one cause of such obstruction which is definitely known is the presence of tuberculous mesenteric glands. It is important to notice that such obstruction would exactly reproduce the fatty stools of cœliac disease. Just as in biliary obstruction (unlike pancreatic disease), so in lacteal obstruction, the fat in the stools would be mainly split fat. The diagnosis here would, therefore, rest mainly upon the recognition of tuberculous glands in the abdomen; if they were to be felt I should not myself at the present time regard the case as one of cœliac disease.

J. Ryle [22 23] has recently put forward the suggestion that the symptoms of cœliac disease are due to lacteal obstruction. It is, however, abundantly clear that tuberculous glands, which are practically the only recognised cause of such obstruction, are not the cause of it in this disorder. For this statement I adduce the evidence from a series of over 40 cases of cœliac disease which have passed through my hands. Not one has shown evidence of overt tuberculosis in the abdomen or elsewhere, and this in spite of lasting invalidism in many instances; nor do autopsies, few though they are, discover such glandular lesions. It is not a rare thing to discover clinical evidence of tuberculous mesenteric glands, and it is impossible to imagine that it is always those which cannot be felt which should produce lacteal obstruction. Further, of the three cases brought forward by Ryle, two showed important differences from the ordinary type of cœliac disease.

If, then, we can set aside tuberculous adenitis as the cause of lacteal obstruction we are in great difficulties in suggesting any other condition, especially any infective condition, of the glands to account for the obstruction. It would have to be one which could produce, in some instances at all events, an apparently sudden obstruction of the lacteals which could last for many years and ultimately allow of great improvement in the absorption of fat; and, further, to do all this and yet never spread, even in tiny invalid children, to any organ in which it could be recognised clinically. Nevertheless, we must not forget that lacteal obstruction would give rise to the typical cœliac stool just as accurately as would the defective action of bile salts.

II. *The Non-Diarrhœic Type.*

In this type [12] the symptoms are all milder than in the classical type. The enlargement of the abdomen, the lack of growth, the loss of appetite, and other symptoms can all be recognised, although of less severe grade. The chief difference between the two groups lies in the appearance of the stools. In the classical type, when severe symptoms are present, the stools are large, pale, unformed, highly offensive, and containing 40–80 per cent. of fat, chiefly in the form of fatty acids. In the non-diarrhœic type the stools are again larger than normal, but they are coloured, formed, not offensive, and contain 30–50 per cent. of fat, chiefly in the form of soaps. Similar stools are passed in the quiet stages of the diarrhœic cases.[9 15]

In the diagnosis of this type I have found most difficulty arise in connexion with two groups of cases: (1) temporary over-feeding with fat; (2) chronic enfeebled digestion of all foodstuffs. The diagnosis may be reached with careful watching on the lines already given above, by a consideration of the essential diagnostic points in cœliac disease.

I desire to express my grateful thanks to my colleague, Dr. H. Perkins, pathologist to the Paddington Green Children's Hospital. The large number of fæcal examinations and analyses which he has made for me forms the basis of whatever may be of value in this paper.

(*Continued at foot of next column.*)

FAMILIAL TELANGIECTASIA.

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AMONG the rarer diseases of familial incidence is a curious condition of which the features are summed up in the name multiple familial facial telangiectases. A number of families have now been recorded since Wickham Legg described the first in THE LANCET of 1874.[1] The marked symptom of the condition is epistaxis, coming from the lesions in the nose or bleeding from similar lesions elsewhere. In 1865 Babington [2] described a condition which he called hereditary epistaxis which was very likely the same condition as Legg recorded nine years later, but he gave no description of any lesions. The following is the account of a family in which a number of its members show telangiectases.

Clinical Records: First Family.

The first member of the family I saw was a woman aged 44, who came to hospital with symptoms due to secondary anæmia. On examining her tongue one could see some eight little telangiectatic spots scattered over the dorsum. They were bright pink in colour, round, and varied from 1 to 2 mm. in diameter. There were several on the inner and upper surface of the lower lip. These were about the same size as those on the tongue or rather larger. One or two of the largest formed little dark purple blebs. Another was inside the left lower eyelid, and there were two under the finger-nails. Several were scattered about on the backs of the hands and wrists. With the exception of those on the lip all were small round pink spots. She said that she had first noticed the spots on her lip about five years ago, for they had been prone to bleed when she was eating. About this time also she had had a good deal of nose-bleeding. This had been sufficiently severe to send her to hospital. Lately she has been free from this, and no nævi are to be seen on the lower part of the septum. Other members of the family are also affected. She states that her father had a cluster of small telangiectatic spots around the nostrils and inside the nose. From these he often had bleeding.

She has four children living. The eldest, a man of 24, has one or two small nævi on the face, but has never had nose-bleeding. Her eldest daughter, aged 20, has small nævi on the lips and tongue like her mother. There is also one in her left eye. These have all appeared quite recently, and she has lately had a good deal of epistaxis. Apart from these she has had some spots on her hands and face for some time. The youngest daughter has several spider nævi scattered over the body; she has never had epistaxis and she says the spots come and go quite quickly. There are none on her face. The third daughter has no nævi.

(*Continued from preceding column.*)

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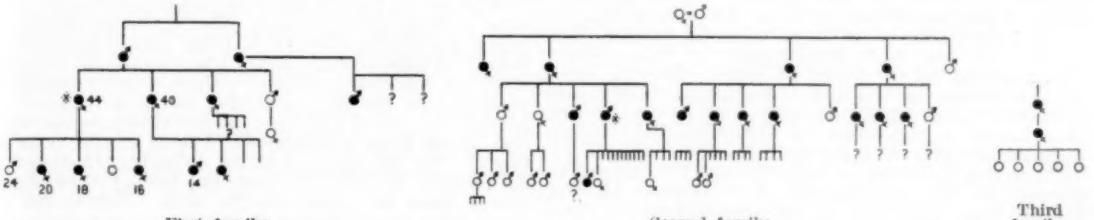
The patient has two sisters. The elder has a few telangiectatic spots on the bridge of her nose; she has never had nose-bleeding. Of her four children, the eldest, a boy of 14, has two nævi on the nose, and the next, a girl, has a few on the face. The other two are free and none have had nose-bleeding. Her younger sister has had a good deal of trouble with nose-bleeding, which came on when she was about 18. She has had to have her septum cauterised. Her aunt, her father's sister, has small nævi all over her tongue similar to those on the patient. They are also present on her upper lip and round the nostrils and on her hands. Those round the nose have caused much bleeding for which she had to go to hospital. This woman has three children, one of whom, a boy, often has nose-bleeding. Lately this has been worse, and during the last five years small nævi have appeared on his tongue and lips.

The family tree shows the symbol dark where the individual has telangiectases. There are 11 members affected. Some are very slight lesions and have hitherto caused no trouble. In fact, one would hardly notice them unless one was on the look-out for them, nor would one attach any importance to them apart from the fact that their owners are members of a family in which they have a definite incidence, and that in some they have caused a great deal of trouble and discomfort.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and there is evidence to show that they may occur on the brain. Bleeding chiefly occurs from the spots in the nose, but it not infrequently starts from the mouth during eating and sometimes from the face or elsewhere if a spot is damaged.

In the majority of cases there is a history of bleeding from the nose, starting in childhood. This is so in 40 out of 57 cases in which there is a definite account. Other persons show no sign of the disease until middle life. Often in childhood the spots are not at all conspicuous, and they become more prominent as the patient grows older. Epistaxis is then the only symptom. When the lesion appears later in life the spots appear on the face very often about the time that the patient begins to complain of epistaxis. Occasionally the spots are there but no epistaxis occurs.

Incidence and Transmission.

In the 35 families reported, 237 persons have suffered from the disease. In 25 instances the sex is not stated, but of those where the sex is mentioned 104 are males and 108 are females. The disease thus affects males and females equally. The disease appears to be transmitted rather more often by females than males. It has been transmitted by the mother 53 times and by the father 38 times. For the most part the disease appears in each generation. Sometimes it appears to die out in one branch of the family, and occasionally a generation is skipped. This occurs definitely in five instances and there is a probability of it having occurred in two others. The disease is present in the grandparent, lies dormant in the parent, and reappears in the grandchildren. This has happened very probably seven times in 91 recorded transmissions.

Treatment.

The only really effectual method of stopping the bleeding is cauterisation of the bleeding-point. Various drugs have been recommended with a view to increasing the coagulability of the blood, but it seems clear that they can do little when the fault is in the vessels themselves. Later they may be useful when there is marked secondary anæmia, for such a condition would tend to prolong the hæmorrhage when once it had started, thus setting up a vicious circle, as was pointed out by Parkes Weber.

Discussion.

Apart from this disease, with its familial incidence, quite a number of cases are on record which resemble the cases in these families in every way except that there is no family history of the trouble obtainable. There is a possibility that some of these sporadic cases may be really instances of atavism, and that the disease has lain dormant in one of their parents, or even for more than one generation. Although nothing is known about the cause of this familial abnormality, telangiectases certainly do appear in association with a number of conditions. Sir William Osler pointed out their curious relationship to cirrhosis of the liver. They may appear quite suddenly in catarrhal jaundice, and disappear equally rapidly. Nævi are also frequently seen in the scars of X ray burns. They may appear on the face in Graves's disease. It is well known that alcohol tends to promote their appearance in some people, as does also exposure to the weather. The combination of these two factors was no doubt responsible for the complexion of some of the old London 'bus drivers. Here constant dilatation seems to have led to a condition of permanent ectasia. Possibly in the cirrhotic and jaundice cases the local action of a toxin on the vessels leads to degeneration of the walls and the pressure of the blood within them does the rest.

But quite apart from any of these associations there is a tendency for telangiectases to appear in people as they grow past middle age. The lesions in the sporadic cases always show themselves late in life, never in childhood as in the familial cases. The condition may, then, be arrived at perhaps through the action of toxins on the capillaries in the acquired cases or through some familial developmental error. In all the cases under review the lesions have been confined to the capillaries or small venules. There is, however, in some cases a history of the blood spurting from the spot as though a tiny arteriole were involved. One may draw a parallel between these local lesions of the smaller vessels and the extensive lesions which involve all the branches of some large artery, a cirsoid aneurysm. A cavernous nævus seems to be the same condition appearing in a large vein and its branches. All such changes may be found in one individual, as in a case which I reported [11] of a woman who showed a cirsoid enlargement of the arteries of the right arm with great dilatation of the veins of the hand. There was also a large capillary nævus on the left cheek. In the production of some cirsoid aneurysms no doubt a congenital defect in the vessels is the cause. Before the character of the lesion was recognised this disease was called hereditary epistaxis. Cases of hereditary hæmaturia have been recorded by Pearson [13] and Aitken.[13]

Hæmaturia does sometimes result from telangiectatic areas in the bladder and renal pelvis. A boy, aged 8, was admitted into King's College Hospital under Sir Watson Cheyne in 1901, with a two years' history of hæmaturia. There was a large nævus with warty excrescences on it on his thigh which sometimes bled, and on operation a similar nævus was found in his bladder. Is it possible that hereditary hæmaturia may result from telangiectatic lesions in the urinary tract? On the whole it seems unlikely. In none of the recorded families was there any history of bleeding except from the spots on the face. Hæmaturia is never mentioned. Although the lesions do sometimes appear in these families on the internal organs, it is quite the exception.

Reference may be made to an interesting family recorded by Libman and Ottenberg.[14] In this case it was one of hereditary hæmoptysis. In the families with nose-bleeding it is true that hæmoptysis may occur, but there are easily seen spots in the pharynx, or, as occurred in one case, on the epiglottis. In the family where hæmoptysis was the only symptom no lesions from which the blood might have come were seen, even with a bronchoscope. It is possible, of course, that the lesions are in the lung tissue.

The disease is of importance because of the serious inconvenience the epistaxis causes the patients and because of the grave secondary anæmia to which it may give rise. In three instances death has been due directly to the hæmorrhage. The severity of the hæmorrhage late in life is, no doubt, partly due to the general vascular changes and increase in blood pressure which are commonly present.

Conclusions.

1. Three families are described which show multiple facial telangiectases. 2. The disease is due to a congenital vascular abnormality generally appearing in childhood. 3. The hæmorrhage tends to become more severe when the condition is complicated by severe anæmia or vascular disease. 4. The condition appears equally in males or females, but is transmitted rather more often by the females. 5. The disease may be latent in some generations and reappear later.

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CARCINOMA OF THE PROSTATE.

TECHNIQUE OF OPERATION.

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UNTIL Young, of Baltimore, demonstrated that malignant disease of the prostate could be removed by a perineal operation no attempt had been made to extend the experiences gained in cancer surgery in other parts of the body to this region. Young's operation aimed at the removal not only of the gland, but also of the base of the bladder; but he was the first to admit that his after-results were unsatisfactory in two respects—namely, permanent incontinence of urine due to damage of the nerve-supply of the compressor urethræ, and the formation of a recto-vesical fistula.

The principles which underlie the operation I have devised differ in no material respect from Young's, but whereas he gained access to the tumour by the perineal route, in my operation the bladder is opened above the pubes and removal of the diseased tissues carried out under direct observation. The preliminary communication on this subject was made before the Section of Urology of the Royal Society of Medicine in March, 1924. During the succeeding 12 months further experience has enabled me to elaborate my original technique and shorten the time required to complete the operation.

Anatomy of the Region.

A reference to the anatomy of the vesiculæ seminales and prostate is necessary in order to explain the raison d'être of my technique. The vesiculæ seminales may be described as a pair of convoluted organs situated at the base of the bladder between it and the rectum, and converging towards the upper pole of the prostate, to terminate as ejaculatory ducts. By their anterior surfaces they are closely approximated to the base of the bladder, and posteriorly to the rectum, the fascia of Denonvilliers and loose areolar tissue intervening. The upper ends lie against the ureters at the termination of their intra-vesical portions. The inner border of each vesicle is in relation to the corresponding vas deferens and its ampulla, with which it is united by a band of fascia. The vas deferens winds round the upper pole of the seminal vesicle to pass outwards to the lateral wall of the pelvis. Its relation to the ureter is variable. In the majority of cases it separates the ureter from the vesicle, but occasionally it takes a different course and, becoming hooked round the ureter, the vas lies between it and the bladder wall.

It is not necessary to describe the anatomical relations of the prostate gland, but, in order to appreciate the pathology of malignant disease in this organ attention must be drawn to the fasciæ which make up the prostatic bed, the *loge prostatique* of the French writers. This, for practical purposes, is well described by Denonvilliers, one of the first to study the subject. He describes an aponeurosis running from the anterior surface of the prostate to the symphysis pubis. The apex of the prostate is supported by the deep layer of the triangular ligament. On either side is found the so-called lateral aponeurosis of the prostate, which passes backwards from the rami of the pubis to join the rectum. Between it and the gland is cellular tissue. Separating the seminal vesicles and the prostate from the rectum there is the prostato-peritoneal fascia or fascia of Denonvilliers; this is attached below to the prostate and triangular ligament and united above to that part of the peritoneum which descends between the bladder and the rectum. By its posterior surface it is but loosely attached to the rectum, but by its anterior firmly fixed to the seminal vesicle and the true capsule of the gland. In the living subject I have observed that there is a band of fascia extending from the junction of the seminal vesicle and the prostate to the descending ramus of the pubes. This often contains a blood-vessel and, though hardly a ligament in the correct sense of the term, one may refer to it as such and give it the title of pubo-seminal.

Mode of Spread of Prostatic Cancer.

Having drawn attention to these anatomical details it will be convenient, at this stage, to mention how, from the pathological standpoint, the fascia of Denonvilliers plays an important part in the spread of prostatic cancer. If a careful microscopic examination be made of the seminal vesicles with the terminal part of the vas deferens in a case of advanced carcinoma of the prostate, it will be found that the cancer cells spread out fan-like beneath the bladder from the parent mass. These cells pass along the lymphatic channels buried in the fibrous tissues which envelop the vasa deferentia and the seminal vesicles. In no case have I seen the glandular epithelium of the latter organs infected by cancer. Thus in theory the removal of the seminal vesicles is unnecessary, but in practice it is unavoidable. At the point where the fascia of Denonvilliers becomes attached to the peritoneum forming the most dependent part of the pouch of Douglas, the further progress of the migration of the malignant cells in this direction appears to cease, for the peritoneum acts as a barrier. The cells are, however, diverted towards the ureters which they embrace and stenose.

The pathology of carcinoma of the prostate is of absorbing interest, and in a subsequent communication will be dealt with in detail, but the purpose of this article is to draw attention to the advantage of a radical operation which will prolong life, and if undertaken in the early stages will make the eradication of cancer in the prostate as probable as in other organs.

Technique.

The operation, for purposes of description, can be divided into two stages, the first stage consisting in the separation of the prostate from the surrounding structures, and the second the dissection and removal of all the tissues which form the base of the bladder as far back as the inter-ureteric bar and the anterior wall of the rectum. In both stages it is essential to have plenty of light in the bladder itself and to have the bladder wall well retracted. Headlights throw 80 per cent. of their rays on to the skin of the anterior abdominal wall and, unless very powerful, are unsatisfactory in bladder surgery. This is particularly true of lamps attached to the forehead. The best means of illuminating the bladder is to insert an electric lamp into its cavity. Such a lamp was devised by me a few years ago. This can be attached to the bladder retractor, and has proved to be reliable. Retraction of the bladder walls is readily accomplished by means of a self-retaining retractor of the Thomson-Walker pattern.

A good exposure of the internal meatus and bladder base can only be obtained if the patient is placed in the Trendelenburg position. The operating-table should be tilted to the right angle before the supra-pubic incision is made, and not when the bladder has been opened. The circulation of elderly people is slow in responding to alterations of positions. When the bladder has been opened and the retractors inserted an incision is made round the internal meatus and with a blunt dissector the line of cleavage between the growth and fibrous capsule determined. This line of cleavage is quite definite, even in advanced cases, owing to the failure of the malignant cells to penetrate this capsule. Should the mucous membrane of the bladder base be thickened or actual malignant nodules be seen with the naked eye, the incision is carried back to the inter-ureteric bar, and a triangular area mapped out, the apex being at the internal meatus and the base between the two ureteric orifices. The next step consists in separating the prostate from the *loge prostatique*. As soon as partial mobilisation of the gland and its growth has been accomplished, with the aid of Duval's forceps, the mass is delivered into the bladder with its attachments to the base of the bladder and seminal vesicles still intact.

The second stage of the operation consists in the removal of all tissues anterior to the front of the rectum including the mucous membrane of the bladder base, if considered invaded by the disease. By pulling the prostate out of its bed the pubo-seminal ligaments are put on the stretch. These are then clamped and divided, thus permitting the scissors to be inserted between the anterior wall of the rectum and the fascia of Denonvilliers. With great care this fascia and the seminal vesicles are stripped off the loose fatty tissue which intervenes between them and the bowel. It is now advisable to search for the vas deferens, either on the inner side of the seminal vesicle or at its apex. Should the tissues between the seminal vesicles be infiltrated with growth the vas can only be isolated at the point where it comes into relation with the ureter. The variability of this relation, as already described, makes this part of the operation tedious and difficult, for ascending infection will follow a division of the ureter in its intramural portion. When the vas deferens has been isolated it should be ligated as near the brim of the pelvis as possible, and at the same time the glands in this region dissected out. Division of the vas allows the prostate, seminal vesicles, and surrounding tissues to be still further separated from the rectum. When this has been accomplished on either side all that remains in order to remove the whole mass is to divide the fascia of Denonvilliers at its attachment to that part of the peritoneum which forms the bottom of the pouch of Douglas. Button-holing the peritoneum need cause no anxiety provided the opening into Douglas's pouch is immediately closed by sutures. On the other hand, it is a serious mistake to button-hole the rectal wall. A recto-vesical fistula results, and though the patient may survive this complication and even live many months, his condition will be pitiable. One case in which this mistake was made survived 18 months. By the perineal route injury to the rectum is often unavoidable, by the suprapubic route it is due to carelessness. The operation is completed by inserting a Marion's tube into the bladder.

With the removal of the malignant growth a large, raw surface is exposed, the base of which is formed by the rectum and the sides by the torn edges of the bladder walls. As healing proceeds this cavity contracts, but after so extensive an operation the base of the bladder and prostate bed are also filled in with scar tissue which narrows the urethral outlet. In every case, therefore, subsequent to the closure of the suprapubic opening, the new internal meatus must be dilated at intervals with gum elastic or metal bougies. The alternative to this procedure is to give the patient a permanent suprapubic fistula. The immediate after-treatment differs in no respect from that usually practised at St. Peter's Hospital for the simple enlarged prostate.

Advantages of the Operation.

The discussion of a surgical operation is incomplete without considering its suitability to the extent of the disease for which it is intended. This is especially true of malignant disease, one of the most difficult problems yet to be solved being the accurate detection of deep-seated metastases. Attention has already been drawn [1] to the difficulty of correctly interpreting the size of a growth of the prostate by palpation through the rectal wall. As a method of investigation to determine whether surgical removal of the malignant mass is feasible it is unreliable.

Palpation of the glands in the groins should be part of the routine examination, and their obvious enlargement, though not contra-indicating the major operation, increases its risk. Dissection of these can be postponed until three to six months have elapsed from the time of the prostatectomy. The cystoscopic appearance of the mucous membrane of the internal meatus and base of bladder is a most valuable guide in determining the extent of the disease. Gross infiltration by cancer cells in the regions indicated produces nodules, congestion, and œdema. If the growth has reached the inter-ureteric bar and is invading the muscle-fibres of the vesical portion of the ureters, ascending infection to the kidneys will occur and cause a failure of renal function. All the reliable methods of estimating the latter must, therefore, be carried out before it is decided whether the case is operable. Lastly, the assistance of the radiologist must be obtained to search for bone metastases. My views during the past 12 months have been somewhat modified with regard to the value of skiagraphy as a means of detecting all deposits in bone. In some cases they were only revealed post mortem.

By such an operation as I have described the danger of death from pyelonephritis, which is the usual terminal stage in unoperated cases, is banished, provided the ureter is not divided; but it must be admitted, as always in malignant disease, that metastases may occur even in the most favourable cases. My record of cases demonstrates, however, that a greatly improved state of health results from this operation.

[1] Proc. Roy. Soc. Med., 1924, vol. xvii., pp. 43–52.

ABSCESS AND GANGRENE OF THE LUNG.

REPORT OF TWO CASES, WITH A SHORT STATISTICAL STUDY.

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THE following two cases of abscess of the lung came under my observation recently. The opportunity has been taken to collate some statistics of cases of abscess and gangrene of the lung occurring in a large general hospital over a period of 25 years.

CASE 1.—J. M., a man aged 40, was admitted to the Middlesex Hospital under the care of Dr. A. F. Voelcker in June, 1923. He complained of pain in the right iliac fossa, extending back to the right lumbar region, which had been present for three days. Twenty years previously he had served in Africa, India, and Egypt as a soldier, with no serious illness except an attack of jaundice. He was healthy looking, with a good colour. The tongue was furred; temperature 99·6° F. There was tenderness in the right iliac fossa and right hypochrondrium, but no rigidity. Liver dullness was diminished. Movement of right chest was diminished, and the percussion note impaired over the right lower lobe. Tactile fremitus was lessened, the breath sounds weak, and a few medium bubbling râles were heard. Sputum was scanty and not offensive. Exploratory puncture was performed, and 10 c.cm. of a clear sterile fluid removed. Ten days after admission pleural friction was noted at the right base, the moist sounds were more numerous, and the sputum had increased in quantity and become muco-purulent.

Three weeks after admission signs of cavitation were noted in the posterior axillary line at the level of the seventh rib, and the percussion note over the right upper and middle lobes was now impaired, with deficient air entry. Orthopnœa was present, cyanosis, and clubbing of the fingers. X ray examination showed diminished excursion of the diaphragm on the right side and density in the right costophrenic sinus, above which was a clear area of lung surmounted by a dense rounded opacity, possibly an abscess. *Entamœba histolytica* cysts were found in the stool at this period, and a course of emetine hydrochloride was given.

The patient's condition gradually got worse, wasting, increasing cyanosis, and a more copious and offensive sputum being noted. In the third week of July an exploratory operation was undertaken by Mr. E. L. Pearce-Gould and a large abscess cavity in the lung was drained. The patient died a few hours later. Post mortem a large subdiaphragmatic abscess was found, communicating with a large abscess cavity in the lower lobe of the right lung. A healed duodenal ulcer was found, but no abscess of the liver.

The case is of interest in that the primary focus of infection was never definitely localised. It is possible that the subphrenic abscess arose from the duodenal ulcer, became encysted and eventually infected the lung.

CASE 2.—H. A. P., a man aged 43, of robust physique, was admitted to the Middlesex Hospital in March, 1921, with signs of consolidation at the base of the lower lobe of the right lung. He was treated with an autogenous vaccine of

pneumococci. Later in the year he attended the out-patient department for a short period, when signs of pulmonary fibrosis were noted. In May, 1923, he returned to the out-patient department and gave a history of three severe attacks of coughing associated with severe dyspnœa and much thick sputum. He was admitted under the care of Dr. Voelcker in June, 1923. He complained of pain over the left upper chest, dyspnœa, morning cough, and expectoration. He had lost much weight since his previous admission, was pale, neither cyanosed nor dyspnœic, and had a temperature of 101° F. There was diminished movement of the left chest, percussion note was greatly impaired, and vocal fremitus much diminished over the left upper lobe. Air entry was very poor over this area, and coarse and medium râles were present; rhonchi over the remainder of the lungs. The sputum was neither offensive nor excessive; tubercle bacilli were not present. Five days after admission he was suddenly seized with a violent bout of coughing, sat up, became cyanosed, and within five minutes fell back dead.

Post mortem a large abscess cavity was discovered in the left upper lobe filled with a reddish-brown grumous material which was not offensive. No tubercles were seen and there was no evidence of pulmonary tuberculosis. Larger bronchi opened into this cavity, which was lined with a grey-green exudate. The surrounding lung tissue was firm and airless with much fibrous tissue. Here the original lesion was probably a broncho-pneumonia, fibrosis with residual infection occurred, and the abscess gradually developed. It is unusual for such a cavity, apparently with free bronchial communication, to retain its contents so long and for the latter to remain inoffensive.

Relative Frequency of the Complication.

An investigation of the records of the Middlesex Hospital over a period of 25 years was undertaken in order to obtain some figures as to the relative frequency of these highly fatal complications. Fifteen cases of abscess and 16 cases of gangrene were recorded during the years 1898–1922, in an average admission of 1400 cases per annum. The death-rate in this series was 80 per cent. for abscess, and 81·25 per cent. for gangrene. The average age of the patients suffering from abscess was 37 years, and of those suffering from gangrene 41·8 years, or omitting one case in a child of 3 years, it was 44 years. The oldest patient in this latter group was aged 70 and she recovered. The following tables show briefly the primary cause of the disease and the result.

TABLE I.—*Abscess.*

Primary cause.	No. of cases.	No. of deaths.
Lobar pneumonia	1	1
Influenza and influenzal pneumonia	3	2
Broncho-pneumonia	3	3
Intra-abdominal disease	3	2
Puerperal sepsis, pyæmia	1	1
Uncertain, pyopneumothorax	1	1
Typhoid and dysentery, 20 years previously	2	1
Inhaled foreign body	1	1

TABLE II.—*Gangrene.*

Lobar pneumonia	3	2
Influenza and influenzal pneumonia	3	1
Broncho-pneumonia	2	2
Cardio-renal sclerosis	1	1
Cirrhosis hepatis	1	1
Diabetes with granular kidney	1	1
Cardiac dilatation and hypertrophy	1	1
Carcinoma ventriculi	1	1
Gastric ulcer	1	1
Grangrenous pharyngitis	1	1
Uncertain	1	1

In the series of cases of abscess it will be noted that in eight of them the primary disease was in the lung, and a ninth case was due to the inhalation of a foreign body. Lobar pneumonia only accounted for one of these cases, though abscess and purulent infiltration are always stated as complications. Influenza accounted certainly for three cases and probably for a fourth, all between the years 1899 to 1902. From 1898 to 1909 all cases of pneumonia were classified together and amounted to 1285 for the 12 years. From 1910 to 1922 there were 772 cases of lobar pneumonia and 378 cases of broncho-pneumonia, besides cases arising during the course of other diseases and not separately recorded. Abscess, therefore, as a complication of lung disease only occurred in 0·32 per cent. of cases, and the percentage incidence for lobar pneumonia is no doubt less. Fränkel [1] records, on the other hand, abscess formation in 2 per cent. of pneumonias. The physical signs varied, usually an impaired note with diminished air entry; signs of excavation were less frequent. The sputum in the majority of cases was copious, more than 20 oz. a day in three cases, muco-purulent, and offensive. Hæmoptysis occurred in one case, and pleural friction was noted in one case. Post mortem the lower lobe was involved in six cases, and the upper and middle lobes in three. In the remainder multiple abscesses were present. In one case a large effusion of dark purulent material, 150 oz., was present in the pleural cavity.

In the series of cases of gangrene several cases occurred as terminal infections in chronic disease, and the age-incidence was higher. Clinically the symptoms were more severe, fever being higher and rigors frequently noted. The sputum was always extremely foul and, except for the child of 3 years with gangrenous pharyngitis, contained blood, though the child had a blood-stained discharge from the pharynx. Signs of excavation were present in four of the cases, a pleuritic friction in two. Post mortem the lower lobe was involved in 11 cases and the upper lobe in two. In the remainder numerous areas of gangrene were present.

With regard to the question of surgical interference, all the cases of gangrene were gravely ill, and such treatment was only tried in one case of abscess recorded at length. It must be noted that the majority of these cases occurred prior to 1914, since when the surgery of the chest has made great advances, and methods of radiological localisation have been greatly improved.

In reading through the case reports from which these statistics have been compiled it is evident that the diagnosis of these two lesions was in the majority of cases a difficult one. This difficulty was also apparent in the two cases cited at length; in one of them the lesion present was not diagnosed during life. Though the ætiological factors, speaking generally, are the same, whether abscess formation or the more severe gangrenous change is to occur, appears to depend very largely on the resistance of the patient and the severity, virulence, and type of the infecting organism.

When the final results are examined the death-rates of the two conditions are approximately equal, and cases treated medically are almost invariably fatal. Verneuil [2] in 1900 recorded a death-rate for gangrene of 80 per cent., and Lenhartz [3] in 1905 a death-rate of 70 per cent. Medical treatment, therefore, does not appear to have been any more successful in the last 20 years. P. H. Pierson, writing in Billings-Forch Heimer's "Therapeusis of Internal Disease," 1924, also quotes a mortality-rate of 60 per cent to 90 per cent. in cases treated by medical measures.

Surgical treatment certainly offers a greater hope of cure. The induction of a pneumothorax is unsuccessful in many cases on account of the presence of adhesions. Sauerbruch [4] performs an open operation, draining the cavities. He gives figures of his results; the mortality-rate for acute abscess was 15 per cent., for chronic abscess 37 per cent., and for cases of gangrene 51 per cent. Where the disease process is progressing rapidly or a foreign body is present which cannot be removed by the bronchoscope an immediate operation is advisable; in other cases time should be allowed for the abscess to become walled off and pleural adhesions to form.

My thanks are due to Dr. Voelcker for permission to publish the two cases recorded here, which were under his care, and for his criticisms of this paper, and to the other members of the staff of Middlesex Hospital who have allowed me to use the records of their cases for the second portion of this article.

[1] Fränkel: Deutsche Med. Woch., 1903, p. 204.
[2] Verneuil: Ann. de la Soc. Belge de Chir., 1900, viii., 148.
[3] Lenhartz: Verhandl. d. Deutsch. Rontgengesell., 1905.
[4] Sauerbruch, F.: Die Chirurg. der Brustorgane, second edit., 1920, Berlin.

NOTES OF 100 CONSECUTIVE CASES OF SCOPOLAMINE-MORPHINE NARCOSIS IN CHILDBIRTH.

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THE narcosis, called "T.S." for brevity, was administered by me, and the patients were under my close observation in my nursing home; 61 were primiparæ, 39 multiparæ. Other confinements in the home during the same period but without T.S. afforded means of comparison.

Method.

The injections were hypodermic, usually into the arm, the patients being kept in bed. The room was darkened and absolute quiet observed. Dark glasses were not used, and wool ear-plugs were employed in one case only.

The first dose for primiparæ was morphine gr. ½ and hyoscine gr. 1/100, given when the patient said the pains were becoming severe. The personal factor of sensitiveness to pain and general nervousness naturally affected the length of the period between the earliest pains and the first injection, but patients were encouraged to bear the slighter pains. Vaginal examinations were not made unless specially indicated, but where they were called for it was found that dilatation rarely exceeded 1 inch without severe pains.

For multiparæ the first dose was morphine gr. ¼ and hyoscine gr. 1/100, given as soon as labour began and without waiting for severe pains. No injection was given if it appeared that labour would be over in three hours or less; with this exception the cases were not selected in any way. The second dose was usually hyoscine gr. 1/150 an hour after the first; in one case gr. 1/100 was given. Subsequent doses consisted of hyoscine only; in no case was any more morphine given. The frequency and amount of the doses, from gr. 1/150 every hour to gr. 1/450 every two or three hours, were determined by the response to memory tests. Amnesia, not analgesia, was aimed at, and in no case was analgesia obtained.

In nearly all cases a little chloroform was given at the end of the second stage, and unless an ordinary dose of hyoscine had been given recently I found it advisable to give a small dose shortly before the end of the second stage to ensure sleep continuing after the birth; I regard this sleep as a very important factor in attaining complete amnesia. Water was given freely, and in long cases milk or beef essence.

Duration.

For primiparæ, the longest interval between the first dose and delivery was 55 hours, the shortest 1½ hours, average 13½ hours. For multiparæ, the figures are 15½, 2, and 5¼ hours respectively. It is obvious, therefore, that the duration of labour is not increased, as has been stated. On the contrary, it appears that at times it is shortened by the removal of inhibition and the preservation of strength by sleep.

Total Dosage.

For primiparæ, the greatest amount of hyoscine was gr. 11/120 in 29¼ hours, the least gr. 1/100 in 1½ hours, average gr. 1/25. For multiparæ, the figures are, gr. 7/150 in 8 hours, gr. 4/450 in 2 hours, and gr. 1/43 respectively. I have not been able to trace any relationship between the temperaments of the patients and the amount of hyoscine required; for example, two successive primiparæ, young, healthy women, each of whose T.S. lasted 9¼ hours, required five injections totalling gr. 1/30, and seven totalling gr. 1/20 respectively.

Course.

The patients slept practically throughout labour; with the more severe pains they might stir uneasily and groan, and possibly complain of the pain, falling asleep again directly the pain passed off. In many cases what was uppermost in their minds was what had occupied them when labour began, such as their domestic and household arrangements. The following is a typical instance of a patient's utterance: "Oh dear I can't stand any more this twilight sleep isn't any use why don't they give me some more I suppose they have run out of it I think I'll have toasted cheese for my supper." The whole was muttered without a pause, the last nine words signalling the end of the pain and that this had been forgotten; the patient then went off to sleep. Four patients became excited, trying to get out of bed, but obviously quite unconscious of their surroundings. A further dose of hyoscine and the inhalation of a little chloroform controlled the excitement and produced sleep. Subsequent doses in these cases were the usual ones—no greater dose than usual was necessary to maintain quiet sleep. Four patients, though not restless or excited, slept very little; they talked irrelevantly and disconnectedly most of the time, and fancied their relatives and friends were with them. The 55-hour case was in this class.

Amnesia.

Of the primiparæ, over 90 per cent. remembered very little after the first injection, and nothing after the second had taken effect, until a varying period after the birth was completed. I have already mentioned the importance of sleep immediately after the confinement. The remaining primiparæ had some vague recollections of various details and incidents, more or less distorted and confused as to time, &c. With the multiparæ, those who had previously had T.S. successfully, were again successes as regards amnesia. With those who had had prior confinements without T.S., or with whom on former occasions the T.S. had not been successful, it was found that, although the case might now be a complete clinical success as regards amnesia, yet the memory of the previous confinements was often transferred to the present one. The patient would say she remembered all the pains, the birth, and everything else, but investigation of her memory for times, number of injections, &c., would show that amnesia was perfect, and that the origin of her impressions was a previous confinement. As a rule, the patients realised this later.

It was quite usual for both primiparæ and multiparæ to say they could hardly realise the baby was theirs, and that they had lost from a few hours to two or more days of time. Many also apologised for having been so noisy and troublesome, when in fact they had been perfectly quiet and placid.

Inertia was infrequent; in one case only was it severe, that of the 55-hour primipara. She was over 40 years of age, unhealthy and flabby, with a very septic mouth. She had vague feeble pains for 24 hours before the first injection, the pelvic outlet was narrow, and a difficult forceps extraction under full chloroform anæsthesia was ultimately necessary.

Third stage was completed in under 30 minutes except in two cases; in both of these the placenta was nipped partly in the uterus and partly in the vagina.

Hæmorrhage was severe in one case only, and was easily controlled by kneading and the injection of pituitary extract. In no other case was any increased tendency to hæmorrhage, as compared with ordinary cases, observed.

Temperature.—The usual reactionary rise after delivery was entirely absent in the majority of cases; in the others it rarely exceeded 99° F.

Puerperium.

With the exceptions to be detailed convalescence was very rapid, owing to the absence of shock and exhaustion; it was the rule for mothers to say they felt well enough to get up two or three hours after delivery. This well-being at such an early stage was perhaps the most notable feature from the point of view of the patients' friends. Even the 55-hour case, with full chloroform anæsthesia at the end, felt perfectly well a few hours after. In no case

were there any mental symptoms. There was no vomiting with T.S. alone, other than that during the first stage of labour, and this was quite infrequent and slight. Where much chloroform in addition was given the tendency to vomiting was undoubtedly less than with chloroform alone. The exceptions to a normal puerperium were:—

(1) A case of eclampsia; urine found loaded with albumin at the onset of labour; 15 fits in 24 hours after delivery; no further fits, convalescence uninterrupted after. A primipara who had had the usual T.S. (2) A case of slight thrombosis of the veins of the back of the calves of the legs in a thin, ill-nourished woman, beginning on the fourteenth day after delivery. (3) and (4) Two cases of delayed involution, with persistent red lochia, requiring rest in bed beyond the usual 14 days, douches, &c. Both were mothers of several children.

Lactation was unaffected.

Infants were not affected harmfully; on the whole, they were more placid and contented during the first few days of life than those born without T.S. It seems only rational to consider that the infant, during its birth, shares in the mother's freedom from the consciousness of suffering. Artificial respiration for shock ("white asphyxia") was required in the 55-hour case, and in two other cases after difficult forceps extractions with considerable chloroform. All three babies did well. There was no other case of greater severity than some sluggishness of breathing for a short time—oligopnœa.

The following abnormalities occurred:—

(1) Twins, stillborn and premature; combined weight 5 lb. The mother, a primipara aged 37, had had a severe shock a week previously, and had felt no movements since. No fœtal heart was heard. Duration of T.S. 21 hours, total dose gr. 7/120. Delivery unassisted by forceps. (2) Breech; stillborn. Primipara. Cord four times round neck. Duration 23¼ hours; amount gr. 1/30. (3) Breech; stillborn. Primipara. Cord round neck. Duration 27 hours; amount gr. 13/200. (4) First vertex; stillborn. Primipara of very small build; difficult forceps extraction; weight of child 6½ lb. Duration 19¼ hours; amount gr. 1/120. (5) Anencephalic monster; stillborn, vertex presentation. Primipara. Duration 10 hours; amount gr. 13/300. (6) First vertex. Primipara aged 40, unhealthy, with pyorrhœa. Slight inertia. No vaginal examination made. Membranes ruptured spontaneously, liquor amnii brown and turbid with foul fæcal odour. Delivery spontaneously after ½ c.cm. pituitary extract during second stage. Birth of head followed by rush of liquor, some of which the child inhaled, dying 80 hours later of pneumonia. The mother made an uninterrupted recovery without rise of temperature.

Later History.

Many of the mothers and children of this series, and others who had previously had T.S. in the home from two to nine years ago, have been seen since leaving the home. The children are healthy and bright and at least up to normal standards both physically and mentally. I have not heard of any instance of mental or moral defect, so often stated to be the result of T.S. Many mothers have remarked how much more quickly they have recovered than their friends who have not had T.S. Very many have volunteered the statement that they would not mind how many children they have, as regards the confinements, if they can have T.S. One mother has had four confinements, and many have had two and three, with T.S. There is no evidence to support the not uncommon idea that T.S. leads to drink or drug-addiction.

Conclusions.

Provided that the dosage is limited to the production of amnesia only, and is adjusted to the individual, there do not appear to be any contra-indications. The constant supervision that is essential makes T.S. unsuitable, save in exceptional circumstances, for administration in the patient's own home. In hospitals it is difficult to ensure quiet. Full chloroform anæsthesia may be given at any time during T.S. for such procedures as version or rotation of an occipito-posterior presentation, the T.S. being continued afterwards if necessary; or for a terminal forceps extraction, perineal repair, &c. Fortunately, no more serious operative procedure has been necessary in this series, but there seems no reason to anticipate that any such would be prejudiced, either as to the operation or the anæsthetic, by the fact that T.S. had been given.

One great advantage of T.S. is that as the mother is conserving her strength by sleeping, instead of getting worn out by repeated pains and the constant dread of more and worse ones, cases can be left much longer to Nature than would otherwise be possible; in uncomplicated cases the use of forceps merely for the mother's sake is avoided, with consequent lessened risk for both mother and child.

I have to thank Dr. H. O. Davies and Dr. R. H. Dixon for permission to include details of patients under their care in the home, my part in such being limited to the administration of the T.S.

Clinical and Laboratory Notes.

A CASE OF "LAG" GLYCOSURIA.

BY E. M. WATSON, M.D. WEST ONT., M.R.C.P. EDIN.

(From the Clinical Laboratory, Victoria Hospital, London, Canada.)

THE sugar-tolerance test has provided a means for distinguishing between true diabetes and other conditions showing the presence of sugar in the urine, unassociated with any defect of carbohydrate metabolism. In this latter category may be placed, among others, cases of renal glycosuria and, perhaps, certain cases described as "lag" glycosuria. Owing to the lack of certain knowledge concerning the last-named condition, a record of the following case may be not without interest.

Clinical Record.

The patient, a man aged 52, was admitted to hospital on August 24th, 1925, with the following complaints: (1) loss of weight, (2) loss of appetite, (3) vomiting, and (4) constipation. Three months previously he began to vomit after food, his appetite failed, and he lost 40 lb. in weight. He has had no pain with the exception of an occasional burning sensation over the epigastrium. He has never vomited blood nor noticed blood in the stools. There has been no excessive thirst, and the volume of urine has not been increased. Radiographic examination showed the stomach to be contracted to a capacity of about two ounces; the barium meal rushed through into the intestine without delay (a gastro-enterostomy had never been performed). Routine examination of the urine revealed an intermittent glycosuria.

Laboratory Findings.

1. *Urine.*—On a full diet glucose appeared in the urine after meals and disappeared on fasting; the amount varied from a trace to 2 per cent. The urine showed an absence of ketone bodies and of protein. The diastatic index was 10.

2. *Glucose-Tolerance Test.*—

Time.	Blood-sugar (per cent.)	Urine (per cent.)	Sugar (amount)
Before glucose	0·087	0	0
After glucose (50 g.)—			
½ hour	0·222	—	—
1 ,, ...	0·098	0·80	238 mg.
1½ hours	0·079	—	—
2 ,, ...	0·080	0·57	102 mg.

3. *Fractional Gastric Analysis.*—There was no fasting gastric content. Fifteen minutes after a gruel meal a small amount of material resembling saliva was recovered which did not give a reaction for HCl or starch.

4. *Other Findings.*—Blood Wassermann, negative. Non-protein nitrogen, 29·1 mg. per 100 c.cm. of blood. Tests for occult blood in the fæces, negative on three occasions. B.M.R., −12 per cent.

Discussion.

A discussion of the clinical condition of this patient will not be attempted; only one aspect of the case will be considered—namely, the blood-sugar curve

and the glycosuria. MacLean [1] has described the "lag" type of blood-sugar curve. Its chief characteristics are a rapid rise to a maximum of 0·22 or 0·23 per cent. in half an hour, followed by an abrupt decline to normal. There is a concurrent glycosuria.

The interpretation of such an effect presents some difficulty. Is there an abnormality of the carbohydrate storage mechanism such that it requires an unusually high blood-sugar concentration to set it in operation? Or is the mechanism merely temporarily overwhelmed by the rapid absorption of a large amount of glucose? Considering the velocity with which the stomach emptied itself in the case recorded above, the latter explanation would seem to apply, in this particular instance at least. That the carbohydrate storage function is efficient, once it becomes active, is demonstrated by the fact that the blood-sugar curve returns to the normal level within the recognised standard limit of time. Bennett and Dodds [2] have shown that solutions of glucose, under normal conditions, are detained and diluted in the stomach.

According to MacLean the "lag" type of blood-sugar curve is of little or no prognostic significance, although he states that some investigators claim that the condition may terminate in a true diabetes. In a case reported recently [3] the patient is said to have had the condition for 36 years without showing any tendency to pass into a true diabetes.

The case described in this note not only serves to emphasise the importance of the glucose-tolerance test in throwing light upon glycosurias of uncertain origin, but also suggests that cognisance should be taken of a possible relationship between the emptying time of the stomach and the distortion of the carbohydrate metabolism in cases of the "lag" type.

Thanks are due to Dr. J. C. Wilson and Dr. G. C. Hale for permission to publish this case.

NOTE ON AN UNUSUAL CASE OF SUPRACLAVICULAR ADENITIS.

BY FRANK BODMAN, M.B. BRISTOL, M.R.C.S. ENG

THE following case is of interest on account of its unusual character.

W. F., aged 59, reported that two days previously, while hay-making, he had fallen off a wagon on to the shoulder and had since been unable to use the arm. On examination by candle-light a tender swelling over the middle of the clavicle was discovered. There was pain on attempting to move the arm, and drooping of the shoulder on the affected side. The patient was mentally deficient and very deaf. Diagnosis of fractured clavicle was made. Next day it was noticed that the tender swelling was above the clavicle and beside a well-marked deltoid tubercle, the lower border of the clavicle being unbroken. This was confirmed by a skiagram. Further examination discovered a small granulation under the nail of the thumb. The patient complained of no pain there. There was no enlargement of glands in the axilla. The supraclavicular swelling was fomented for 48 hours—no fluctuation could be detected at any time. Glycerine of ichthyol was then applied and the swelling resolved.

Wood Jones [4] states that in fœtal life the cephalic vein empties into the external jugular instead of the subclavian, and presumably its accompanying lymphatics terminate in the supraclavicular glands. Kanavel [5] states that the most external collecting trunk of lymphatics from the hand occasionally passes over the clavicle to empty into the supraclavicular gland.

Bristol.

[1] MacLean, H.: Modern Methods in the Diagnosis and Treatment of Glycosuria and Diabetes. Second edition, 1924, p. 42.
[2] Bennett, T. I., and Dodds, E. C.: THE LANCET, 1925, i., 429.
[3] Carrasco-Formiguera, R.: THE LANCET, 1925, i., 1076.
[4] Principles of Anatomy as seen in the Hand, p. 312.
[5] Infections of the Hand, p. 287.

FLOATING HEPATIC LOBE.

BY A. J. E. CAVE, M.B. MANCH.,
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OF the abdominal viscera, by far the most constant in size, shape, and general proportions is the liver, and only very occasionally does this organ depart in form from the standard anatomical description. Owing partly to this and partly to its position in the upper abdomen, the liver is of the utmost importance to the clinician if only as a passive indicator of disturbances in the neighbouring viscera or in the thoracic cavity. Hence the necessity for mapping out the hepatic area in all routine examinations, and for a knowledge of the commoner extrinsic malformations or varieties of this gland.

The most frequent extrinsic anomaly encountered is the well-known Riedel's lobe, a tongue-like downward prolongation of the right lobe, a condition which Riedel thought to be associated with distension of the gall-bladder. Less common, but equally important, is the occurrence of the so-called "floating lobe" in connexion with the left lobe of the liver, which Quain [1] well described as a detached portion occasionally found appended to the left extremity of the liver by a fold of peritoneum containing blood-vessels, and "forming a sort of accessory liver." Such floating lobes rarely produce symptoms, but can give rise to definite signs, recognisable clinically, and may easily simulate abdominal tumours or an accessory spleen. In one such case, described by Inglis, [2] the additional liver lobe formed a pulsatile and expansile tumour in the left upper abdomen, which at autopsy proved to be a rounded piece of hepatic tissue lying in its own capsule quite apart from the liver, to which it was connected by a mesentery about 2 inches in length. The subject was a female lunatic aged 75; the gall-bladder was not distended, and no symptoms could be ascribed to the presence of the additional lobe.

The present case is very similar. In the recent dissection of an obese female subject aged 86, also the victim of chronic mental disease, a mass the size of a hen's egg was detected close to the spleen, and was thought, at first, to be an accessory spleen. Further investigation showed, however, that the mass was a true floating lobe of the liver, to the left edge of which it was attached by a double fold of peritoneum which acted as its mesentery, and, in life, must have permitted great mobility of the extrinsic lobe. The gall-bladder was contracted and the liver otherwise normal.

These floating lobes have a certain, if limited, clinical importance, and are worthy of note. Treves [3] thought them to be associated with gall-bladder distension, but this is not the case. They are always congenital in origin, and are due to portions of hepatic tissue being isolated, as it were, during the great shrinkage of the left liver lobe which occurs towards the end of fœtal life and for some time following birth.

[1] Quain's Elements of Anatomy, 1882, ninth ed., ii., 626.
[2] Inglis, J. P. P.: Brit. Med. Jour., 1911, i., 83.
[3] Treves, Sir F.: Med. Rev., iii., 321.

MENTAL DISEASE IN IRELAND.—At a meeting of the Poor-law Commission of the Irish Free State Dr. D. L. Kelly, inspector of mental hospitals, reported that, with the exception of Letterkenny, virtually every asylum in the Free State is overcrowded. There were approximately 1000 patients too many for the accommodation, yet mental disease was only slightly on the increase. He advocated the provision of an auxiliary asylum for every province.

SUSSEX PROVIDENT SCHEME.—This scheme for hospital and specialised medical services appears to be growing apace. Since its inception the following sums have been paid to hospitals: 1921, £332; 1922, £1039; 1923, £3245; 1924, £5501; 1925, £6376. These sums include payments for services rendered at non-coöperating hospitals to members who paid for treatment at any hospital they chose in other parts of the country.

Medical Societies.

MEDICAL SOCIETY OF LONDON.

A MEETING of this Society was held on Feb. 8th, Sir HOLBURT J. WARING, the President, occupying the chair.

RIGHT ILIAC FOSSA PAIN.

A discussion on this subject was introduced by Mr. W. H. CARSON, whose contribution will be found in full on p. 328 of this issue of THE LANCET.

The Medical Aspect.

Dr. ARTHUR F. HURST dealt with the diagnosis of pain in the right iliac fossa due to disease of ileum, cæcum, and appendix. He affirmed that the chief explanation of the numerous mistakes made in diagnosis was want of care, and that a thorough investigation of the whole alimentary tract, or of the whole body, ought to prevent the vast majority of errors. It was desirable to avoid removing an appendix which was not diseased, but it was also important not to overlook chronic disease associated with appendicitis in some other part of the abdomen, which would be revealed by thorough preliminary examination of the patient. For example, in 40 per cent. of cases of chronic appendicitis, confirmed by operation, achlorhydria was present. This meant that gastric digestion was not taking place, and so the patient was predisposed to intestinal infection and a variety of complications. Appendicitis was also frequently associated with chronic cholecystitis, and if tenderness in the region of the gall-bladder had been carefully elicited and the duodenal tube had been used to get some bile for investigation, this association would have been recognised. There was also a frequent association of appendicitis with gastric and duodenal ulcer, and the latter would have been evident on X ray examination. A condition causing right iliac pain which was not mentioned by Mr. Carson was amœbic infection of the cæcum, not only in people who had returned from the East, but sometimes in those who had not been out of this country. In these cases both the cæcal and the liver pain cleared up after injections of emetine. In most of these cases cysts could not be found in the stools, and they did not proceed to abscess formation, but they could be cured by emetine.

The most important help in the diagnosis was that afforded by X rays; by this means it was possible to see the appendix in normal people, and in at least a large percentage of people with chronic appendicitis. For this, however, there must be a proper technique. A radiogram by itself was useless; there must be a screen examination, though as a matter of record a skiagram could be taken too. At the screen examination the physician should be present. Dr. Hurst described by means of a diagram how the tenderness caused by an inflamed appendix could be differentiated from muscle pain, a particular manipulation moving the appendix out of the way for the time being. When an appendix had been removed and the patient still had pain in that region it was often said to be due to adhesions, but he doubted whether adhesions there would cause such pain, or an ileal kink either. It was more likely to be due to the failure of the gastro-colic reflex. He believed it was only possible to diagnose the presence of adhesions by inflation of the colon with air before applying the X rays. With regard to the position of the cæcum, in 10 per cent. of normal people it was in the pelvis when they were lying down, and in 25 to 30 per cent. it was in the pelvis when they were in the erect posture; a cæcum in the pelvis, therefore, was not pathological. The trouble was that those who examined pathological people and specimens did not sufficiently examine the normal. In the small proportion of cases in which the appendix was not visualised, all one could do was to see if there was localised tenderness, estimated by moving the cæcal end of the ileum and ascertaining if there was tenderness where the appendix was expected to be. Another condition to bear in mind was tuberculosis limited to the end of the ileum, perhaps just affecting the beginning of the cæcum. These cases simulated appendicitis very closely, but the appendix was not found to share in the tenderness. After the patient had been sufficiently long on a carbonaceous diet, if the condition was appendicitis, there was never occult blood in the stools unless there were some such complication as ulceration of duodenum or stomach. Another confusing condition was cæcal and ascending colon stasis, which was sometimes associated with some localised colitis or typhlitis. In such cases removal of the appendix did no good; the patient suffered from various other symptoms besides the chronic iliac pain, and the tenderness was confined to the cæcum and ascending colon. Radiographic examination revealed that the cæcum, instead of being empty after two days, contained a considerable residue of the barium meal four or five days after it was taken. Even when the appendix was secondarily involved in the stasis, removal of it did not cure the pain. But by prolonged medical treatment, massage, and dieting these patients could be made well. Division of bands in this region not only did not benefit, but he had seen patients made definitely worse by that procedure.

The Gynæcological Aspect.

Dr. T. WATTS EDEN said the gynæcologist was somewhat at a disadvantage in taking part in this discussion, as the organs with which he was specially concerned were either mesial or bilateral, and so there was no reason why disease of them should cause pain on one side more than on the other. It was inevitable that appendicitis must loom largely in this discussion, and it was sometimes associated with inflammatory disease of the pelvis. It was the experience of his colleagues that in cases of chronic salpingitis—which mostly came to operation—the appendix was involved to a greater or less extent, in quite 50 per cent., and in perhaps half the cases operated on for salpingitis the appendix was taken away. There might be merely a thin band of adhesion between the inflamed tube and the appendix. To what extent the involvement of tubes in the appendix caused the pain it was difficult to say, especially as these women usually had many pains associated with their chronic ill-health. When the appendix was not removed the symptoms were sometimes only partially relieved, and when the patient returned a second operation showed the appendix adherent to the broad ligament pedicle, this pedicle consisting of infected tissue. For some time American surgeons had always removed the appendix when they were taking away the tubes. Acute salpingitis was met with under two sets of conditions. The first were those of septic infection from childbirth or abortion; the second was gonorrhœa. In the first of these the circumstances in which the acute abdominal symptoms occurred drew attention to the possibility of the tubes being infected. In gonorrhœa, however, there might be nothing more than a slight discharge to give a clue, and this might not be carefully examined. When salpingitis occurred from gonorrhœa it often came on quite early in the disease. Then there was a sudden acute attack of pain, with fever, vomiting, and constipation, which might closely simulate appendicitis. It might be said that diagnosis was not here of prime importance, since operation would be needed in any case; but this was not so, as the gonorrhœal salpingitis showed a great capacity for recovery. Though eventually the condition became bilateral, one side was often involved some days before the other, and the tubes might retain functional competence for some time. Torsion of the pedicle of a tube might cause a pain simulating that of appendicitis, and an ovarian cyst might twist its pedicle. Until the tube had attained some size it did not come under the influence of the movements of the abdominal muscles which started the twisting.

In these cases the diagnostic difficulties must be very great. He agreed in deprecating the minimal incision in these abdominal operations, because of the desirability of ascertaining the condition of contiguous organs. Cases of ovarian pregnancy had occurred with severe symptoms, and there were records of women having died from burst ovary and hæmorrhage in the peritoneal cavity. Or there might be hæmorrhage into the corpus luteum, usually in a diseased or cystic ovary. In one form the hæmorrhages were multiple. The condition was usually bilateral, but one side was affected more than the other, and the pain referred to the right iliac fossa would often be a very prominent symptom in these cases. They were generally recognised on account of bilateral ovarian enlargement, and associated dysmenorrhœa and perhaps an adherent and retroverted uterus. He concluded by relating a case in which a sewing needle was found transfixing the right ovary. Some time before the patient had swallowed a sewing needle which she had in her mouth, and it was supposed to have passed per rectum: but apparently it had lodged in some part of the pelvic cavity, and as a result of a fall it was jerked into the ovary, where it caused the pain.

The PRESIDENT mentioned a case which he had encountered abroad in which the acute right iliac pain was due to the presence of a collection of nematode worms. In his own experience he was able to say that in the majority of cases in which the cæcum had been brought up from the pelvic cavity and fixed at a higher level the patients had not been benefited. With regard to the X ray diagnosis of chronic appendicitis, he felt that many radiologists had not had sufficient of the experience gained from attending the laparotomy after they had made a diagnosis from the skiagram. In some cases in which he operated for appendicitis he had found that the appendix was not materially diseased, but there was a tuberculous condition of the adjacent portion of bowel.

Mr. J. E. H. ROBERTS congratulated Dr. Hurst on the way in which he was raising the art of diagnosis by opaque meal from a haphazard procedure to a science. Fixation operations for mobile colons answered for a time, but in 12 months the patients were as bad as before. The discussion had emphasised once more the importance of a thorough all-round examination of the patient, rather than examination of one organ by some individual who never saw a disease of any other organ.

Dr. G. W. GOODHART referred to the condition of spasm of the colon, and gave a personal experience. He also spoke of cases in which apparently dysentery had been cured, but the patient suffered for many years afterwards from a good deal of chronic pain in the right iliac fossa; this also he considered to be due to spasm of the colon. With regard to Dr. Hurst's remark, Dr. Goodhart did not think that the fact that a patient's abdominal symptoms were cured by emetine was proof that he had been suffering from amœbiasis unless the amœba was actually found.

Mr. T. H. OPENSHAW said that he had had a good many cases of colitis with appendicitis which were cured with the removal of the appendix. An additional cause of right iliac pain was psoas abscess; another was adherence of the colon or appendix to the external cutaneous nerve. The most common causes of pain after appendix removal were adhesion of the omentum to the scar inside, a commencing ventral hernia, or involvement or ligature of the inguinal nerve during the operation.

The openers briefly replied.

BRITISH INSTITUTE OF PHILOSOPHICAL STUDIES.—A special meeting to discuss the Problem of Colour in Relation to the Idea of Equality will be held at the Royal Society of Arts, 18, John-street, Adelphi, London, on Tuesday, Feb. 16th, at 8.15 P.M. The openers of the discussion are Sir Frederick Lugard, the Hon. H. A. Wyndham, and Dr. Morris Ginsberg. Tickets of admission, which are limited in number for members of the public, can be obtained on application to the Director, British Institute of Philosophical Studies, 88, Kingsway, W.C. 2.

ROYAL SOCIETY OF MEDICINE.

SECTION OF OTOLOGY.

A MEETING of this Section was held on Feb. 6th, Mr. G. J. JENKINS, the President, being in the chair.

The PRESIDENT opened a discussion on

FRACTURE OF THE BASE OF THE SKULL.

He said his object was to direct particular attention to certain general principles of surgery, rather than to the symptoms, signs, or permanent effects of injury to the parts in which the aural surgeon was specially interested. In all cases, before making a routine examination of the nose and ear, it was desirable to know whether there had been a chronic sepsis of these regions.

Diagnosis.—When confronted with serious head injury, even when there was no obvious sign of damage in these regions, the nose and ear should always be carefully examined. Sometimes the evidence of fracture of the base was obscure. Bleeding from the nose in serious head injuries was frequently due to fracture of the skull base, yet it might be caused by an intrinsic injury to the nose. The elimination of fractured base when such nose injury was present might be impossible, and Mr. Jenkins asked that this point might be discussed. He asked whether members regarded loss of smell as a constant accompaniment of fractures which involved the cribriform plate. A posterior hæmorrhage could sometimes be discovered coming from the naso-pharyngeal roof, or a fine stream of blood might issue from the orifice of the Eustachian tube. The examination of the patient should not be considered to be complete until the nose had been searched for gross sepsis.

With regard to fracture involving the ear, when there was destruction of the labyrinth or a lesion of the lower neuron of the seventh cranial nerve, or severe bleeding, or a flow of cerebro-spinal fluid from a torn tympanic membrane or the skin of the meatus, usually there was no doubt that fracture of the base had occurred. When considering injury of the labyrinth one must have in mind the possibility of a severe blow affecting the labyrinth without fracturing the capsule. Injury of the seventh cranial nerve was common, and it was not unusual for the paresis to increase for two or three days after the accident. When blood flowed freely it was very difficult to detect cerebro-spinal fluid in it, though usually this could be done when bleeding had practically stopped. Blood clot sometimes rendered it difficult to make out the details of the injury. In cases of gross injury of the ear there was but little difficulty in making a diagnosis. Mr. Jenkins therefore emphasised the less obvious indications of fracture, and quoted an illustrative case in which the patient, following a fall, had a blackening of the right tympanic membrane, and blood was trickling from the Eustachian tube on that side. He considered that the presence of blood in the middle ear justified the diagnosis of fractured base. A fracture might involve the bony external auditory meatus without rupture of the tympanic membrane or the membranous meatus. In such cases the line of fracture might be indicated by a swelling, sometimes a discoloured line. A comparison with the other ear should always be made; and the presence or absence of chronic middle-ear suppuration should be noted.

General Management and Treatment.—Mr. Jenkins stressed the importance of preventing infection and especially of its extension to the meninges. When the nose had been severely damaged there was a temptation to attempt immediate correction of the deformity, but there might be a risk in this if fractured base had not been quite excluded. When fracture involved the ear and there was no bleeding, he advised dropping into the meatus a 2½ per cent. alcoholic solution of iodine, cleaning up the pinna, and dressing aseptically. He did not advise the removal of thin, dry blood in the deep meatus; he preferred to simply fill the meatus with the iodine solution.

Syringing in these conditions he did not favour. Discussing the best procedure when fracture occurred through an ear which was the seat of chronic suppurative middle-ear disease, he said that if there was an obvious escape of cerebro-spinal fluid he would make the drainage of that part as free as possible, even doing a partial radical mastoid operation for this purpose and exposing the dura along the line of fracture in this neighbourhood. In the absence of evidence that the dura had been seriously damaged he would clean up the region at regular intervals, and proceed further as indications arose. His reason for this caution was that operative action might, in the first day or two, cause movement of bone fragments, and so produce damage to the dura.

Discussion.

Sir CHARLES BALLANCE said he had never seen hæmorrhage from the internal carotid coming out of the external auditory meatus, except in tuberculous disease of the petrous bone; not from injury. And it was very rare for hæmorrhage to come from the lateral sinus. If this did occur it was liable to be rapidly fatal. Hæmorrhage might come from the middle meningeal artery. The chief sources of hæmorrhage in these cases, however, were the vessels of the tympanum and those of the meninges. Efforts must be directed to stopping this bleeding and preventing the supervention of sepsis. If important parts had been interfered with the surgeon must try to secure a return of their function. In some cases of fractured base the hæmorrhage continued for a number of days; in others it had ceased to be important by the second day. Associated with the bleeding there was often concussion and unconsciousness. In that case the earlier decompression was carried out the better it would be for the patient; he had had many cases in which the great value of sub-temporal decompression was demonstrated. Any surgeon who saw such a case should do this operation without loss of time. Of 16 cases in which Harvey Cushing trephined in this way all except two recovered. In cases in which the nose was damaged the same principles of treatment applied. He did not think the nose could be rendered aseptic. Where a fracture occurred across the cribriform plate decompression could be done and sterilised gauze introduced between the brain and the fracture with the object of preventing infection. When fracture occurred through the posterior fossa the injury was much more serious because of its proximity to the vital centres in the brain stem. Hence operation became still more urgent in such a case. When there was a fracture through the base of the middle fossa and blood came from the ear it was the duty of the surgeon to carry out a complete mastoid operation at once, so as to remove all disease and expose the dura, and, if possible, separate the dura from the area which had been infected. Regarding prognosis, he said it was very difficult to know which cases would have meningitis. Sometimes apparently hopeless cases got well. He advised that every case should be treated as if it would develop meningitis. In some cases of fracture through the middle fossa the patient had total deafness and facial palsy. The former might recover, but the latter mostly persisted.

Mr. SYDNEY SCOTT agreed that a large number of these fractures involved the middle ear and resulted in middle-ear deafness. In another group there were absolute deafness, destruction of labyrinthine functions and of the cochlea, as well as facial paralysis. Usually severe head injuries with aural symptoms were seen in other departments of the hospital, and the aural surgeon only saw at first the less serious cases. He referred to one case of remarkable recovery. A boy fell 40 feet and was brought in unconscious, bleeding from the ear. Pulpy tissue removed from the ear was found to be brain tissue. A year later the boy was normal and hearing was completely restored.

Mr. A. R. TWEEDIE (Nottingham) urged the necessity of collecting statistics of hospital cases in which the petrous bone and nasal cavities were involved. He thought active interference in these cases should be avoided, except when primary suppuration existed.

Mr. J. F. O'MALLEY referred to a case in which loss of smell followed fracture of the base in an air officer who had a crash. In that case hæmorrhage occurred from the posterior fossa. Syringing might be dangerous when the tympanic membrane was involved in a fracture.

Mr. ARTHUR CHEATLE exhibited 23 specimens of fractured base of the skull—17 of his own and 6 from the Royal College of Surgeons. The most common type, occurring in 10 out the 23, was one in which a double line of fracture ran, one through the roof of the meatus, and the other through the posterior meatal wall. Obviously, fractures of the base could occur without cerebro-spinal fluid escaping. Such escape meant a rupture and tearing of the membranes or a fracture running through the labyrinth. He thought it could also occur without hæmorrhage from the ear. In 4 of the 23 cases the fracture had been through the labyrinth itself. In 8 of the 23 cases the facial nerve had been completely divided; in 2 of them that nerve was exposed by the fracture. He considered that the cartilaginous meatus should be purified before anything was done to the deep meatus, as the latter did not contain the number and variety of organisms found normally in the cartilaginous meatus. He agreed that if a fracture passed through a known septic middle ear, operation should not be immediately attempted as it would add to the patient's danger.

Exhibition of Cases.

Dr. DAN MCKENZIE reported a case of otogenic encephalitis in which decompression resulted in recovery.—Mr. F. W. WATKYN-THOMAS gave an account of a woman aged 54 who had necrosis of the petrous bone with unusual complications. Her meatus was found to be blocked by a polypus, and after it had been snared, under gas, she went home apparently well. The same night, however, she had violent vertigo, with falling to the right. Tests pointed to the right labyrinth being active, and a radical mastoid operation was done. The mastoid was eburnated and acellular, and cholesteatomatous debris was found in the antrum and a fistula above the ampulla of the external canal. Exploration disclosed turbid fluid under pressure and pus in the labyrinth. The internal auditory meatus was blocked with blood clot. Drainage was carried out, but the patient did not recover.—Dr. SCOTT WILLIAMSON, who made the post-mortem examination, explained his findings: necrosis of the whole of the petrous to the apex, disintegration of the Gasserian ganglion, and thrombosis of the cavernous sinus and the internal carotid within the sinus. There was no infection of the sphenoidal air sinuses.

Mr. SCOTT described a case of fistula of the semicircular canal, causing vertigo, diplopia, and nystagmus. The patient, a woman aged 25, had had chronic suppurative otitis media for several years, and for six months the insertion of a finger into the left ear caused vertigo. He described in detail the symptoms manifested, and the case was fully discussed.

MEDICAL SOCIETY FOR THE STUDY OF VENEREAL DISEASES.

A MEETING of this Society was held on Jan. 29th at the rooms of the Medical Society of London, Dr. WILFRID S. FOX, the President, being in the chair, when a discussion took place on

The Diagnosis and Treatment of Urethritis and Cervicitis in the Female.

Dr. DOROTHY LOGAN, in introducing the subject, said it was her custom to make many examinations in her search for the gonococcus. Certainly at the women's clinics it was hopeless to expect to make a definite diagnosis on first seeing the patient. She

examined locally, palpating and expressing the contents of the urethra. Sometimes she obtained ½ drachm to 1 drachm of pus from the latter, when it was not even reddened. Bartholin's glands were also examined, and she used Kusko's speculum for examining the cervix. A bimanual examination followed in order to ascertain what complications were present; and she always took some blood for a complement test. The history given by the patient was received with considerable attention. A statement that rheumatism followed confinement she regarded as significant, as it might mean gonococcal infection. Of 75 new cases, a positive report as to gonococci was returned in only four from film examination, though she felt sure that a considerable proportion had gonorrhœa. Even if a case did not seem very suggestive of the disease clinically she always tried to take three films of it. In a legal case she would not give positive evidence unless gonococci had been actually found, however likely the case was otherwise. Treatment, on the other hand, should not await such positive evidence. She had discovered gonococci in a discharge from the cervix which seemed to be nothing but an excess of clear mucus; also in a discharge which could be described as mucoid, and likewise in a case which had only slight erosion and where there could be obtained only a history of possible exposure to infection two years previously. She was always suspicious of caruncles of any kind. With regard to treatment in a general way, she said she had found vaccines were very useful in the average case. A patient might complain chiefly of pruritus, but there might not be any definite discharge from the cervix or urethra and Bartholin's glands might be clear. Improvement usually followed the use of protargol in glycerine, in packs, and after vaccines the patient usually came back declaring she was quite well. The injections caused little or no discomfort. At a medical discussion she had heard films taken from the vagina described as worthless, but she recently had three cases in which the vaginal film was positive on occasions when those of the urethra and cervix were negative, but later became positive.

Dr. VIOLET RUSSELL said the vast majority of cases of cervicitis were due primarily to the gonococcus. In doubtful cases that organism could usually be demonstrated if looked for on a number of occasions. The most serious damage wrought by the gonococcus was to render the tissues attacked by it susceptible to infection. Urethritis was said to occur secondarily to a *B. coli* pyelitis; this diagnosis, however, should only be made after bacteriological examination had excluded the gonococcus. She had encountered three cases of *B. coli* pyelitis complicating an attack of gonorrhœa without there having been any intervening cystitis. In examining the vulva the burrowing habits of the gonococcus must be kept in mind, and special attention paid to the orifices of Bartholin's ducts, and to the urethra and its ducts. The urethra might seem to be normal, but on milking it a drop of mucoid or purulent secretion might appear, and this rendered the case suspect. A cervicitis presented more difficulties in making a diagnosis, owing to the possibility of sepsis after laceration at a confinement. And there was a class of gonococcal infection in which the cervix was badly eroded, but the urethra was apparently unaffected. Many films must be examined before the case could be pronounced not gonococcal. Sometimes gonococci could not be found until the septic discharge had been cured. The films should be taken from the interior of the cervix immediately after menstruation. Films from the rectum might be positive in a case in which they had been consistently negative from the cervix and urethra, even when there were no signs of proctitis. The diagnosis of gonorrhœa in a pregnant woman might be very difficult, owing to the congestion of the parts caused by their high vascularity. Bacteriology was the safe standby.

Dr. Russell described several types of gonorrhœa. Those of chronic gonorrhœa could be divided into those with discharge but no hyperæmia, those with hyperæmia but no obvious discharge, and those having both congestion and a discharge. The most favourable class for treatment was the first of these; the most numerous class was the third. She said she had seen several instances of mild vaginitis after the use of quinine pessaries. Vaccines she had not found of much service, but injections of collosol manganese sometimes helped. Patients with gonorrhœa should avoid getting hot, as heat increased the discharges. Local treatment required patience and perseverance, and she thought that rapid and certain cure could only be secured in a few cases which came in the very early stage. Dr. Russell described many cases, and detailed the treatments she followed in the various conditions.

The PRESIDENT spoke of two male cases of very severe dermatitis and swelling of the penis following the use by the wives of quinine pessaries.

Dr. FELIX PEDROSO (Brazil) described a suction apparatus for clearing the female genitalia of discharge and residue, which he had used in 3000 cases. In some the discharge disappeared after one use.

Dr. B. B. SHARP insisted that cultures were necessary in these cases, as well as smears, and referred to cases the nature of which was established by doing cultivations when the smears taken had been always negative.

Dr. T. J. WRIGHT (Norwich) said that for obstinate cases of gonorrhœa in the female he found diathermy more useful than any other measure.

Colonel L. W. HARRISON also stressed the fundamental importance of taking cultures for diagnostic purposes, especially as there were many micro-organisms indistinguishable from the gonococcus on smears. In treatment the important matters were good drainage and increasing the patient's resistance.

Dr. DAVID WATSON (Glasgow) had a good word for the examination of smears in diagnosis, especially in expert hands.

Dr. T. ANWYL-DAVIES said his experience was that temperatures even up to 112° F. did not kill the gonococcus, at least in the female.

Dr. LOGAN and Dr. RUSSELL briefly replied.

NORTH OF ENGLAND OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.

AT a meeting held in Manchester on Jan. 15th, when Mr. W. GOUGH (Leeds), the President, took the chair, Prof. H. BRIGGS showed two specimens illustrating the advantages of

Vaginal Hysterectomy.

The first was a uterus (1 lb. 3½ oz.) with multiple fibroids mainly in the lower uterine segment; the largest was low down on the left side and was fixed upon the pelvic floor. The second was a uterus (4 oz.) from a case with first and second degrees of prolapse on a weak pelvic floor. There was glandular erosion of the cervix, and a sessile adenoma and an interstitial fibroid of the body of the uterus. Compared with the size of the normal pelvic cavities in which each uterus lay at a low level, the one specimen was large and the other small. Vaginal hysterectomy had been done in both cases.

Were there any advantages, Prof. Briggs asked, in vaginal hysterectomy for non-malignant uterine growths? This was not, perhaps, a question to be pushed unduly. Dr. Johnson had said that "questioning is not the mode of conversation among gentlemen." For himself, Prof. Briggs was quite content with the success and safety of the operation, where the site and size of uterine innocent new growths pointed towards the pelvic floor. The pelvic floor was a continuation of the abdominal wall and each had its claims. Not infrequently the laxity of the floor was of assistance in performing vaginal hysterectomy, and at the close of the operation the surgeon had an opportunity to correct the defect. This was done in the case with prolapse from which the smaller

uterus had been removed. The temperature had once been 100° F. during the first five days after operation, but otherwise there had been normal convalescence and repair.

Vaginal hysterectomy in this (its lighter) phase was bright in prospect and easy in performance. The heavier phase was represented by the first specimen, which was large enough to fill the outlet of the pelvis and stick there pending reduction of its bulk. Morcellement or enucleation, or some equivalent procedure, would convert an impassable ovoid or sphere into a flexible yielding column, whilst the preservation of the pelvic floor must be ensured. Morcellement was conducted on tissues which were to be removed, and they must not be retained at the patient's risk.

After Pean had introduced morcellement in the 'eighties of the last century, it early trespassed, in its excess, on the preserves of abdominal hysterectomy. But the overlapping had not been one-sided. In 1898 Prof. Briggs had published a report of 13 cases of vaginal hysterectomy for fibroids and had confirmed the value of morcellement. Operation by the vaginal route was still consistent with the higher interests of gynæcology.

The PRESIDENT said that in his earlier days he had done vaginal hysterectomy for fibroids, some of which reached the umbilicus. Of recent years, however, he had used the abdominal route for such tumours, because the operation was easier and the work was done by sight. Vaginal hysterectomy, nevertheless, was useful in the treatment of the bleeding uterus about the menopause, for it was associated with much less shock than the abdominal operation. He had found that convalescence was often rather delayed by discharge of pus and small sloughs from the vagina.

Dr. A. DONALD said that at one time he had quite often removed uterine fibroids by the vaginal route. In some of the cases the upper level of the tumour had been as high as the umbilicus. It had been an interesting experience, and he thought that even at the present time a gynæcologist should be familiar with the technique. Now, however, the operation should be reserved for cases of chronic metritis or hypertrophy in women approaching the menopause who had fairly patulous vaginæ. In such cases it might still be indicated. The convalescence was generally a smooth one, and free from some of the discomforts that often followed the most successful abdominal operation.

Mr. M. H. PHILLIPS and Dr. J. E. GEMMELL also spoke, and Prof. BRIGGS replied.

An Unusual Monstrosity.

Miss K. EDGECOMBE, in conjunction with Miss FRANCES IVENS (both of Liverpool), reported a case of dicephalus dibrachius dipus which occurred at the Liverpool Maternity Hospital. The monster, which was born after a long and difficult labour with severe laceration of the perineum, had the following characteristics :—

A double-headed female, weighing 6 lb. 15 oz. There are two distinct heads, two arms, two legs, and a single body which shows, on radiographic examination, two distinct spinal columns approximating in the sacral region.

On dissection it appears that the abdominal and thoracic cavities are single ; there is one sternum and two clavicles. There is a single heart and pericardium with one auricle and two ventricles, two aortæ, two pulmonary arteries, two superior venæ cavæ, and one inferior vena cava. The right aorta supplies the right head and upper limb only ; the left aorta supplies the left head and upper limb and continues as a normal thoracic and abdominal aorta. There is a trachea from each head leading to four lungs in four pleural cavities. The organs developed from the branchial arches and clefts are duplicated (tongue, thymus, thyroid). The alimentary canal is duplicated as far down as the duodenum. The right stomach opens into the first part of the duodenum ; the left stomach into the second part of the duodenum. The spleen is single and in a normal position on the left side. The liver is normal in position. An accessory lobulated portion continuous with the normal liver forms a hernia through the diaphragm and lies in the thoracic cavity posterior to the heart and pericardium. There is a single gall-bladder and bile-duct, the pancreas being double. Below the duodenum the alimentary canal is single. The kidneys, ureters, suprarenals, and female pelvic organs are those of a single fœtus.

As all double malformations develop from a single ovum, there is a single placenta and single chorion.

Following bibliographical and other comments by Miss Edgecombe and some discussion on the labour, Mrs. BARTON HALL (Liverpool), who made the dissection, said that after going through the literature on dicephaly since 1866, when Playfair collected seven cases, she had found 37 published cases from all parts of the world. Studying their anatomy, she had divided them into three main groups dependent upon three stages in the superior dichotomy of the primitive streak. The first group, which was rare, was the true dicephalus dibrachius dipus, of which Miss Ivens's specimen was an example. The second and common group included those specimens which resembled the first group externally, but on dissection or X ray examination were found to have a rudimentary third upper limb in the form of a fused scapula and clavicle. The third group was the true dicephalus tribrachius tripus, and occurred with about the same frequency as the first group. She believed that the lungs and œsophagi in these cases of dicephaly were always reduplicated, and that the extent of the reduplication in the rest of the thorax and abdomen depended entirely upon the level of separation. As to viability, she thought that the greater the degree of separation the more chance there was of the fœtus being viable. One case of dicephalus tribrachius tripus delivered alive had lived 24 days.

Dr. DONALD, Mr. PHILLIPS, and Miss IVENS took part in the discussion, and Miss EDGECOMBE replied.

Amongst other proceedings Dr. J. W. BURNS (Liverpool) described a case of carcinoma of the cervix with pregnancy, and Miss EDGECOMBE—on behalf of Miss IVENS and Dr. R. W. BROOKFIELD (Liverpool)—reported a case of Naegele's pelvic deformity.

BRIGHTON AND SUSSEX MEDICO-CHIRURGICAL SOCIETY.

A MEETING of this Society was held on Feb. 4th, Mr. H. J. WALKER, the President, in the chair, when Dr. DONALD HALL read a paper on the

Treatment of Pulmonary Tuberculosis by Artificial Pneumothorax.

Dr. Hall said that during the past six years he had been successful in establishing an efficient collapse in 15 patients. It was difficult to obtain material, for in hospital practice patients were now under the care of tuberculosis officers and only found their way to the out-patient department accidentally ; whilst in private practice most cases were in sanatoriums or under the care of specialists. In this country the treatment had not yet received the recognition which it deserved, for although it was only applicable to some 5 per cent. of cases, it offered them hope denied by any other method. The apparatus he used was that of Vere Pearson and Lillingston ; although rather cumbersome in size it was simple and easy to use and easy to keep clean. For the initial puncture he preferred Riviere's trocar and cannula. In the selection of cases not only the extent but also the activity of the disease in the "healthy" lung must be considered. Care must be taken, in acute cases especially, not to produce too high a pressure, and thus incommode the sound lung. Speaking generally, the optimum pressure was the minimum which kept up collapse. There had been a tendency of late to suggest that partial collapse might be preferable to complete collapse. Of this he had no personal experience. In his three cases in which collapse had been incomplete (although therapeutically adequate) it had been impossible to collapse the lung fully owing to pleural adhesions, and so far he had always aimed at bringing about complete collapse. Of this the decisive test

was the absence of respiratory movement on the fluorescent screen. In four patients, otherwise suitable, pleural adhesions had baulked him completely. He had met with one instance of embolism, in a patient who was having her last refill prior to leaving hospital for her home in the country. A minute after he had withdrawn the needle the patient had conjugate deviation of the head and eyes and went off into an epileptiform fit. She recovered, but had a permanent hemiplegia, and the treatment was discontinued. Presumably the needle had perforated an adhesion containing pulmonary tissue, for the lung was well collapsed at the time.

Dr. Hall illustrated his paper by cases and lantern slides.

Dr. NEVILLE COX said that pneumothorax treatment was necessarily constantly in the mind of those who, as tuberculosis officers, were handling large numbers of cases of phthisis. The difficulty was in defining the suitable cases. Definite evidence of breaking-down lung, as shown by elastic fibres in the sputum, was one indication. Certainly collapse treatment should not be jumped at without adequate trial of other methods, though to defer it too long might be to lessen the chance of success. There was also scope for much judgment during the conduct of the treatment—in deciding the intervals for refills and the pleural pressures suitable to the individual case, and especially in guiding the patient safely through the period of "pleural reaction," when it might be advisable to avoid refills for the time being. When to stop the treatment and allow the lung to re-expand was another difficult question to decide; there were probably many cases in which it was best to continue the refills indefinitely. No sensational figures of successful results were to be expected, but in view of the otherwise hopeless outlook of most of these patients even a small percentage of permanently good results justified the treatment, and in a large number of other patients pneumothorax treatment gave years of useful life, relief from unpleasant symptoms, and lessened infectivity towards other people. There were still a large number of patients dying annually in this country who might have been helped by its timely adoption.

BRISTOL MEDICO-CHIRURGICAL SOCIETY.

AT a meeting of this Society held on Jan. 13th Mr. E. R. CHAMBERS read a paper on the

Ocular Signs of Migraine.

Visual phenomena, he said, form one of the most constant and striking features of migraine. Often the prodromata occur alone, the usual headache not ensuing; the prodromal symptoms are *not* painful. Temporary blindness, flashes or balls of light, or of colours, are frequently noted.

We have only hypotheses, said Mr. Chambers, to explain these signs. There is clearly a disturbance of function in certain parts of the cerebral hemisphere—probably in the cortex. This disturbance is crude, and appears to leave a transient inhibition. Perhaps vasomotor spasm, leading to anæmia, is the cause; the retinal arteries, at least, are markedly contracted at this period. Many of the visual disturbances resemble the aura of epilepsy, but the two conditions only rarely coexist. Apart from the arterial condition mentioned, examination of the eyes reveals little. The pupils are usually dilated but react; they may be in a state of hippus. The arterial spasm is best seen peripherally in the fundus, and is greater during the prodromal stages than later. The veins are unaffected and Mr. Chambers has not observed arterio-sclerosis. Small central scotoma for white may be found, with a large blind spot for red and green. Various forms of spots, haze, scintillation, balls of light, amblyopia, and other symptoms are reported by patients. As a rule, after such prodromata comes a typical attack of migraine, with subsidence; but rarely the blindness is of longer duration, up to several hours. There is a marked tendency for migraine to run in the family, and Mr. Chambers considers that such severe disturbances can only be explained by circulatory changes from nervous causes, presumably in the occipital lobe. The most interesting prodromal sign is the rare transient homonymous hemianopia. This may appear late in the history of a case after many more typical attacks. Cases of this variety are recorded in which the loss of vision was permanent.

A rare group of cases, said Mr. Chambers, suffer from ophthalmoplegic migraine of Charcot, and in these the paralyses may become permanent. This disease usually supervenes late in the history of a case of migraine, hitherto of ordinary type. The third nerve is usually affected, but the intrinsic muscles escape. Probably these cases should not be classified as migraine. Treatment of migraine from the ophthalmic point of view resolves itself into (1) correction of errors of refraction, which may sensibly lighten the incidence of attacks, but will probably not do more (for it is the *small* errors that affect migraine), and (2) correction of errors in muscle balance. The latter is probably the more important.

Colonel A. E. LISTER said that in his experience of migraine the order of the symptoms was sometimes reversed; that is, the typical ball of light was noted in the attacks of early youth, but disappeared in later life.

Dr. J. R. CHARLES asked why Mr. Chambers considered that the cerebral cortex was involved in migraine. He himself regarded migraine as due to pituitary swelling; it was known that at times alterations in the thyroid or ovary caused changes in the pituitary. The anatomical relations appeared to favour his view. The vascular and nervous structures, including sympathetic supply in the immediate neighbourhood, would explain the local symptoms, and glycosuria, polyuria, anarthria, and diarrhœa seemed to point to the pituitary. He found that pituitary lesions generally produced not bitemporal hemianopia but homonymous.

Dr. H. H. CARLETON agreed that the cortex could not be the site of the lesion, especially if migraine of the Charcot type with ophthalmoplegia was included. This variety could not be cortical. He suggested that pure perception of light was of the nature of a protopathic sensation; vision, as we knew it, was epicritic. Spasm of the ophthalmic artery suppressed the latter and released the former to consciousness. He could not, however, conceive that a pituitary swelling—apart from a gross enlargement—could affect the structures in the cavernous sinus or in its walls. In his experience the hemianopia of pituitary tumour was bitemporal.

Mr. CHAMBERS, replying, could not accept Dr. Charles's suggestion that pituitary swelling explained the syndrome of migraine. Nor did he think that the Charcot type was a true migraine. He agreed that blindness might quite well be retinal and not cortical.

Mr. E. WATSON-WILLIAMS showed two cases of carcinoma of the vocal cord in men.

HEART DISEASE IN CHILDHOOD.—At the annual meeting of the Leeds Invalid Children's Aid Society Dr. C. W. Vining said that the society's children's home at Thorparch stood for the treatment of a type of case which had not received enough attention from the medical profession or the public. There was a children's hospital of over 100 beds at the Leeds Infirmary, and the acute case was well dealt with there, but the infirmary could not properly fill the needs of the chronically ill and physically defective child. That was the task the society had set itself, and he hoped that its efforts would be crowned by the State doing more for this kind of case. In particular rheumatic children needed more care. Nearly all heart disease in children was due to rheumatism, and one-half of all heart disease—which caused one-eighth of the deaths in the community—started in childhood. Most of the damage was done between the ages of 5 and 15. If the rheumatic child was properly cared for; if, during the acute phases of the infection it was kept at rest; and if early cardiac cases were given regulated rest and regulated exercise, over months or even years, then the incidence of heart disease and the severity of it would be greatly lessened.

Reviews and Notices of Books.

CARDIOLOGY.

Les Syndromes d'Aortite Postérieure. By CH. LAUBRY, A. MOUGEOT, and J. WALSER. Paris: Octave Doin. 1925. Pp. 234. Fr.35.

DR. LAUBRY and his colleagues have broken new ground in their survey of the clinical manifestations of lesions of the descending aorta. Considering the prevalence of pathological changes revealed post mortem both in the aorta and in its branches, it is surprising that these conditions, apart from aneurysm, should so rarely be diagnosed during life.

The volume opens with a concise description of the morbid anatomy of the different forms of aortitis, illustrated by three beautiful coloured plates. There follows a full discussion of the functional significance of the elastic properties of the aorta, the way in which these properties are modified by disease, and the methods by which the degree of functional impairment can be measured. The next three chapters contain a description of the chief symptoms of aortitis and of the clinical and experimental methods which are of service in its diagnosis. Of the latter, radiological examination and measurement of the velocity of transmission of the pulse-wave are of primary importance. The remainder of the book is devoted to a consideration of the different clinical types of the disease, with a final chapter on differential diagnosis. The clinical features of the various types of affections of the descending aorta are well illustrated by reference to actual cases, and the X ray photographs are convincing, being most successfully reproduced.

Further researches, both clinical and experimental, are needed to simplify what is at present a difficult and a complicated subject; but clinicians, and especially workers in cardiology, will find much valuable information in this book.

Studien zum Problem des Pulsus Paradoxus. By Dr. L. J. VAN DER MANDELE. Vienna: Julius Springer. 1925. Pp. 89. 7*s*.

IN this book, to which Prof. Wenckebach contributes an introduction, Dr. van der Mandele describes the types of paradoxical pulse and its relation to clinical conditions. A complete survey of the literature has been made, 145 papers being quoted. The author describes three types of pulsus paradoxus: (*a*) extra thoracic, (*b*) dynamic, and (*c*) mechanical. The extra thoracic is described as of physiological origin and may be demonstrated by compression of the subclavian artery. The dynamic variety is found in certain respiratory, cardiac, and circulatory diseases, such as degeneration of the heart muscle, conditions causing low blood pressure, and pericardial effusions. The mechanical type is best seen in adhesive pericarditis and other adhesive conditions of the chest wall. The author points out that the recognition of this particular form of graphic pulse may be of aid in diagnosis, and the progress of certain diseases may be followed by the appearance and disappearance of the various types. Numerous figures are given of pulse and respiratory tracings demonstrating the types of paradoxical pulse. It is unfortunate that records of the intrinsic heart action have been omitted, for simultaneous electrocardiograms and pulse tracings would undoubtedly be of interest.

BASAL METABOLISM.

By JOHN T. KING, JR. Baltimore: Williams and Wilkins Company; London: Baillière, Tindall and Cox. Pp. 118. 12*s*. 6*d*.

IN a book of about 100 pages a not very successful attempt has been made to give an account of methods of determining basal metabolism and also of the results in different diseases. Twenty pages are allotted to the study of the anatomy of the thyroid gland and the metabolism in thyroid disturbances, while an account of the effect on the basal metabolism of all other diseases is compressed into eight pages. The book is written primarily for the American public. The Douglas bag method, much used in this country, is not mentioned. From the description of the Tissot method it might be inferred that the way to calculate the oxygen consumption is to subtract the percentage of oxygen in the inspired air from the percentage in the atmospheric air, multiply by the ventilation, and divide by 100. No hint is given that it is necessary to take into account the fact that the inspired air suffers a diminution in volume after leaving the lungs, since the respiratory quotient is always less than unity. Again, the author suggests that in the oxygen "closed circuit" method, which is mostly used in the routine determination of basal metabolism, it is not necessary to absorb the carbon dioxide. Such errors diminish the value of the book.

There is a very complete bibliography which has evidently been compiled independently of the rest of the volume, since many of the references given are not mentioned in the text. This seems to be a fairly common but not very satisfactory custom in recent monographs.

POISONING.

Murrell's "What to do in Cases of Poisoning." Thirteenth edition. Revised by PHILIP HAMILL, M.D., D.Sc., F.R.C.P., Lecturer on Pharmacology and Therapeutics, St. Bartholomew's Hospital Medical College; Physician to the Metropolitan Hospital; late Examiner in the University of London. London: H. K. Lewis and Co., Ltd. 1925. Pp. 276. 4*s*. 6*d*.

THIS book has stood the test of time mainly because it supplies just what is needed in an emergency, being brief, lucid, and accurate. To have seen 13 editions in 44 years is no mean record for a medical work. Dr. Hamill, who is responsible for this and the previous edition, has maintained fully the object and purport of the work and has been thorough in revision. At the same time he has managed to retain the individuality of the earlier editions for which Dr. Murrell was responsible. In the introduction a complete list is given of the essential contents of the antidote-case which every practitioner should keep handy. To this list should be added a copy of Dr. Hamill's excellent little handbook.

PULMONARY TUBERCULOSIS.

La Tuberculose Pulmonaire. Études de phtisiologie clinique et sociale. Second edition. By LÉON BERNARD, Professor in the Medical Faculty of Paris and Physician to the Laënnec Hospital. Paris: Masson et Cie. 1925. With 16 illustrations. Pp. 400. Fr.28.

THIS, the second and completely revised edition of Prof. Bernard's book, presents a series of studies of certain aspects of the tuberculosis problem rather than a detailed exposition of the disease in the usual text-book manner. It does so from the French point of view almost exclusively, and few but French writers receive mention, although warm appreciation is paid to the work of Varrier-Jones at Papworth. Dr. Bernard's creed can be summed up briefly: heredity plays no part, direct or indirect, in the transmission of the disease, contagion being the sole and exclusive factor. Primary infection is glandular, and the child becomes liable to it from birth onwards. The significance of heredity would, therefore, lie in the unbroken chain of infection from forbear to descendant. The mass of the dose will determine the seriousness of the infection and is more likely to arise in the intimacy of domestic circumstances than under casual conditions. The primary infection may produce immunity, either complete or partial. If partial only, there may be recurrence by endogenous reinfection from the primary, hitherto latent, lesion, or from exogenous sources, but these later manifestations of the disease

will differ profoundly from the earlier, since, following Koch's experiments, they will not be glandular. The specific defences of the body evoked by the primary infection are now in operation and the disease develops in the forms observed characteristically in the adult.

Terse and epigrammatic, the book makes piquant reading, and there is never any doubt as to the author's convictions. It is refreshing to note that "there are no pre-tuberculous; either men are tuberculous or they are not," for this pre-tuberculous doctrine appears to have attained an importance in tuberculosis that no one seems to claim for its counterpart in measles or mumps. A short but sufficiently adequate description of the signs and clinical forms of the disease and its relation to maternity leads on to an account of methods of treatment. So-called specific treatment, vaccine or serum, is dismissed as utterly useless. There is a careful examination of the conditions necessary in the construction and administration of sanatoria, and the author dispels the illusion that the value of a site for a sanatorium is to be measured by its height above sea-level. Various social factors, family and school life, military service, industrialism and alcoholism are discussed at length. Alcohol favours tuberculosis because of the misery and poverty it brings with it; it hardly seems logical or convincing, however, to urge that the fear of phthisis should be used as one of the most powerful arguments against drink. The dispensary system in France labours under many difficulties, legal and financial; meanwhile the mortality from the disease, in France as elsewhere, is lessening, due, in the author's opinion, to factors involving directly and indirectly the hygienic conditions of man in the mass and collectively. It is like the echo of a long-forgotten controversy to read the pros and cons of compulsory notification. Let France take heart from our example; it is a useful measure and may be adopted without misgiving.

Altogether a delightfully-written book, easy even for the reader with limited French, provocative and stimulating.

CHEMISTRY.

Smith's Elementary Chemistry. Revised and rewritten by JAMES KENDALL, Professor of Chemistry, Columbia University. London: G. Bell and Sons, Ltd. 1925. Pp. 442. 5*s*.

THE title of this book suggests just one more of the almost innumerable books devoted to elementary chemistry. However, those familiar with the writings of the late Dr. Alexander Smith are accustomed to expect something out of the ordinary, and here they will find such expectations realised. The book has been entirely rewritten, but it is claimed in the preface that "every effort has been made to leave the volume a characteristic Smith text." The epithet elementary in the title is appropriate only in the sense that the work does not deal exhaustively with every subject it mentions. A very much wider field is covered than in most elementary text-books; thus, in addition to the matter on inorganic chemistry and that on physical chemistry quite an appreciable amount of space is devoted to organic chemistry, including the subjects of plant life and products and animal life, the composition of foods, digestion, and so on. The treatment of many of these subjects must, of necessity, be cursory and in that sense elementary, but he must indeed be a dull reader whose interest in chemistry is not stimulated by the perusal of such a book. Throughout the text no pains have been spared to give practical applications of the principles and processes described, and there cannot be many elementary books on chemistry to which one could refer for information on such varied subjects as gas warfare, fire extinction by foam, high speed and other steel alloys, synthetic plastics, blue-prints, atomic disintegration, and isotopes. Altogether this is one of the most readable books on chemistry we have seen for a long time, and its value is enhanced by the inclusion of a number of very interesting illustrations.

THE SCIENCE OF HAPPINESS.

By HAROLD DEARDEN, M.R.C.S., L.R.C.P. London: William Heinemann. 1925. Pp. 344. 10*s*. 6*d*.

THIS cheerful book advises us on how to handle our ideas, emotions, and strivings to the best advantage. Dealing with the mind entirely upon the plane of consciousness, with the exception of a short chapter on the subconscious mind and dreams, the author belongs to the intellectualist school of psychology and believes that by taking thought about ourselves we can bring all our mental operations under our own control. So far does he pursue the intellectualist theory that in his consideration of *interest* and *attention* he makes no distinction between voluntary and involuntary attention. On p. 176 he says that "Even the most normal person, if he does not definitely and consciously adopt a 'mental set,' will tend to wander on from idea to idea in this aimless sort of way..." From this one judges that the author believes that our hobbies and prejudices and all the other bees in our bonnets are consciously adopted and can be wittingly altered—a psychology which is no longer generally held. It is when he touches upon the pathological that the weakness of his position is manifest; for example, in speaking of obsessional dreads he advises the sufferer to concentrate on those associated ideas which render that precise object harmless or pleasant for ordinary folk. This sounds easy, but the obsessional patient has usually tried it before he seeks advice.

In spite of these criticisms we believe that the simplicity of the author's psychology will be acceptable and helpful to many people, that the book may do good and cannot possibly do harm.

JOURNALS.

BRITISH JOURNAL OF SURGERY.—The January number opens with Sir D'Arcy Power's nineteenth eponym on Thomas's hip splint.—In discussing traumatic neuritis of the ulnar nerve H. Platt describes three types in which the nerve lesion is associated with recent or old-standing fractures and with recurrent dislocations; he considers that the only satisfactory treatment is the anterior displacement of the nerve.—A. H. Edwards describes a new operation for the repair of the crucial ligaments of the knee.—The radiological and clinical diagnosis of tuberculous glands in the ileo-cæcal angle is discussed by L. R. Braithwaite.—G. P. B. Huddy reviews 109 cases in whom an internal urethrotomy had been performed, and contributes a most instructive paper on the indications, contra-indications, and treatment.—G. Scott Williamson contributes a somewhat fresh view of the problems surrounding the disordered secretions of the thyroid gland.—W. Billington and H. Round report seven cases of successful bone-grafting of the mandible for civil injuries. The graft is taken from the crest of the ilium and is placed in position between the ends of the jaw, and after the wound is healed correct alignment of the mandible is ensured by the use of a dental splint.—A method of completely exposing the radius for excision or drainage is given in detail by A. K. Henry.—Sir Lenthal Cheatle contributes a long paper on epithelial hyperplasias of the breast, in which he suggests that there is a definite sequence of events in the epithelial changes in the breast that end in carcinoma, and further he submits that these are identical in time and sequence with those occurring in the skins of men and animals after the application of tar.—Sir Charles Ballance, L. Colledge, and L. Bailey record their results in some further experiments in nerve anastomosis. These comprise two groups, one in which the central and peripheral ends of a divided nerve were implanted into the neighbouring normal nerve at varying distances. In the other group certain nerve trunks were divided and anastomosed in cross-wise fashion. In both the results are encouraging.—F. G. Ralphs records a case

of paralytic ileus following fractured ribs treated by ileostomy and recovery.—W. B. Gabriel describes a case of a guillotine amputation stump needing a plastic operation to cover it, a flap being taken in the usual way from the abdomen.—The following rare or obscure cases are described: 1. An unusual complication in operating on large tumours in the neck. The right vagus was stretched over the tumour and had to be dissected clear (H. Halliday). 2. Suppurating thyroglossal cyst (W. E. M. Wardill). 3. Mucous cyst of the tongue (E. I. Lloyd). 4. Rhabdomyoma of the tongue (G. Keynes). 5. Cystic pneumatosis of the small intestine (S. H. Pugh). 6. A case of imperforate anus with megacolon and terminal peritonitis (R. W. Jones). 7. Pulsating goitre with recurrent dislocation of the eyeballs (H. Burrows). 8. Thyroid gland tissue in a dermoid cyst of the ovary (E. H. Shaw). 9. Traumatic rupture of the hepatic duct (S. A. Wallace and A. Spiro). 10. Hernia through the foramen of Winslow with secondary rupture through the gastro-hepatic omentum (E. Rock Carling and A. T. Smith). 11. Acute ascending parenchymatous enteritis causing paralytic ileus (V. Z. Cope).—The pathological atlas deals with some benign tumours of bone.

QUARTERLY JOURNAL OF MEDICINE.—The January number contains the following articles. Heart Failure with Normal Rhythm, by John Parkinson and A. E. Clark-Kennedy. In the majority of cases of heart failure auricular fibrillation is present; failure with a normal rhythm is comparatively rare. A series of 100 such cases has, however, been collected by searching several large hospitals; patients suffering from acute infections, infective endocarditis, or rheumatic carditis in children were not included. The cases were found to fall into certain groups, such as cardio-vascular syphilis, high blood pressure, and chronic lung disease. The prognosis is more unfavourable in heart failure with normal rhythm than when the auricle is fibrillating. An account is given of the pathological changes present in those cases in which an autopsy was performed.—A Case of Malignant Change Developing in a Tumour of the Recto-genital Pouch associated with Diffuse Infiltration of the Lungs and Intense Erythræmia, by Stanley Barnes, A. P. Thomson, and F. W. M. Lamb. The patient, the details of whose illness are here recorded, was an unmarried woman of 28 years, whose chief symptoms were intense cyanosis and dyspnœa. Blood examination showed an erythræmia, but there was no enlargement of the spleen, and no signs of congenital heart disease or of mediastinal growth. At autopsy a diffuse sarcomatous growth was found in the lungs interposed between the alveolar epithelium and the pulmonary capillaries. The primary growth was a small adenomyoma of the recto-genital pouch, which had undergone sarcomatous changes. A plate is included illustrating the histological appearances of the primary growth, an infiltrated lymph gland, and the lungs.—The Blood-fats in Diabetes Mellitus in Relation to Treatment, by A. C. White. There are many conditions associated with an increase of the fats in the blood, and of these the commonest is diabetes mellitus. Investigations were carried out upon 13 cases of diabetes, the majority of which were treated by insulin. The various factors which might influence the blood-fat level are considered, but no definite correlation between them was obtained. The value of the estimation of blood-fats as a prognostic guide in diabetes has not yet been established.—Observations on the Development of Contralateral Disease in Artificial Pneumothorax Therapy, by Maurice Davidson. An interesting account is given of the progress of 22 cases of pulmonary tuberculosis and four of bronchiectasis in whom an artificial pneumothorax was established for therapeutic purposes. In four other cases the diagnosis was uncertain and a pneumothorax was used as an aid to diagnosis in conjunction with radiology. The development of active contra-lateral disease in tuberculosis is a factor which may annul the beneficial effects of an artificial pneumothorax, and the author has made a careful study of the processes which influence its occurrence. Among the conclusions arrived at is that the activity of disease in the relatively sound lung is of far greater importance than the extent of lung thus affected; in acute cases, also, the probability of the disease showing itself in the uncollapsed lung is greater than in chronic pulmonary tuberculosis. Observations were made upon contra-lateral pressures, and excessive pressure due to mediastinal displacement may give rise to ill results entirely remote in their effects. The article is well illustrated by numerous X ray plates.—Nerve Irritation and Aortic Lesions: An Experimental Study, by R. Cunliffe Shaw. Experiments are recorded which were performed upon rabbits to determine the effect of nerve lesions upon arterial changes. The nerves were stimulated electrically or subjected to operative irritation. In the great majority of cases irritation of the vagus or the cervical sympathetic nerves resulted in endarteritis of the aorta. Full details of the nature of the experiments and of the arterial changes found are included in the paper, and the pathological appearances are shown in a series of three plates.—Can Insulin Produce even a Partial Cure in Human Diabetes Mellitus? by G. A. Harrison. This paper was noticed in THE LANCET of Jan. 30th, p. 245.

JOURNAL OF INDUSTRIAL HYGIENE, January, 1926. Under the title of the Thermal Index of Atmospheric Conditions and its Application to Sedentary and to Industrial Life, C. P. Yaglou usefully summarises much detailed investigation carried out in America on ventilation. The thermal condition of the atmosphere being recognised as the determining factor in heat loss and, therefore, of great importance to human comfort, steps were taken to set up an effective temperature index. This was done by recording the sensations of individuals exposed to varying atmospheric conditions. The effective temperature conditions so ascertained were found to be correlated with physiological phenomena, such as body temperature, pulse-rate, blood pressure, body-weight, and basal metabolism. Charts are given showing how the effective temperature can be calculated by varying conditions of air velocity and dry and wet bulb temperatures. When effective temperature is constant the physiological reactions are practically constant. When the effective temperature increases the reactions correspondingly increase. The claim is made that the index found for effective temperatures is more reliable than an estimate by use of the kata-thermometer. Instances are given of practical application in different industries of the method proposed. The treatment by industry of accidents with a view to restoration of function and lessening incapacity is discussed by L. E. Hertslet, who writes from experience in the Transvaal. He points out the financial loss at present sustained, and the value to industrial economics of rehabilitation treatment. He refers in particular to treatment of large septic wounds, of fractures, injuries of the muscles and tendons, of burns, and injuries of the back, and to the value of plastic surgery and of well-constructed artificial limbs. The organisation upon which action should be built is discussed with careful consideration of various methods of modern treatment. His appeal is that industries will find here a sound financial investment, and he is prepared to guarantee a successful issue.

TERAPIA CONTEMPORANEA.—Under this title a new Italian medical monthly has been appearing for some months, edited by Senator G. Pascale, of Naples, and Prof. G. Klemperer, of Berlin, with the help of several hundred of the first authorities of universities in all countries, including Germany, Austria, Italy, France, Switzerland, U.S.A., and Russia. The numbers which have already appeared include original articles by Pascale, Klemperer, Von Haberer, Becterew, Fuchs, Pregl, and others. The new journal will conduce to the furtherance of the scientific working together of the nations and we wish it the best success.

Reports and Analytical Records.

MALVERN WATERS: (1) STILL PURE NATURAL WATER OF MALVERN; (2) SPARKLING "MALVERNIA."

(W. AND J. BURROW, LTD., THE SPRINGS, MALVERN.)

ANALYSIS of (1) still pure natural water of Malvern, and (2) sparkling "Malvernia" (from the St. Anne's spring, Malvern) gives the following results :—

	(1) Still.	(2) Sparkling "Malvernia."
Appearance	Brilliant	Brilliant
Sediment	Nil	Nil
	Parts per million.	
Free ammonia	0·03	0·08
Albuminoid ammonia	0·05	0·05
Oxygen absorbed (3 hours)	0·055	0·24
	C.C. per litre.	
Carbonic acid gas	—	4500
	Grains per gallon.	
Total solids before ignition	4·48	127·9
Total solids after ignition	3·78	116·7
Loss on ignition	0·70 (slight browning)	11·2 (no browning)
	Grains per gallon.	
Chlorine (Cl)	0·49	48·1
Sulphuric acid (SO_3)	Trace	0·96
Nitric acid (N_2O_5)	Nil	Nil
Lime (CaO)	0·7	13·48
Magnesia (MgO)	Trace	7·75
Soda (Na_2O)	0·43	42·7
Silica (SiO_2)	0·84	0·28
Iron and alumina	Nil	Nil

The above are probably combined as follows :—

	Grains per gallon.	
Salt (NaCl)	0·82	79·2
Calcium carbonate ($CaCO_3$)	1·26	24·1
Magnesium carbonate ($MgCO_3$)	—	16·1
Sodium sulphate (Na_2SO_4)	Trace	1·8
Silica	0·84	0·28

Both these waters are of a high degree of organic purity, as evidenced by the minute quantities of free and albuminoid ammonia and the low oxygen absorption. The still water is very soft and contains only extremely small quantities of dissolved salts. The sparkling water, on the other hand, is very saline, the principal mineral constituents being salt and the bicarbonates of calcium and magnesium. It is well charged with gas and is most pleasant to the palate. The still water is sold in glass-stoppered bottles and the sparkling in crown-corked bottles.

PYOTROPIN.

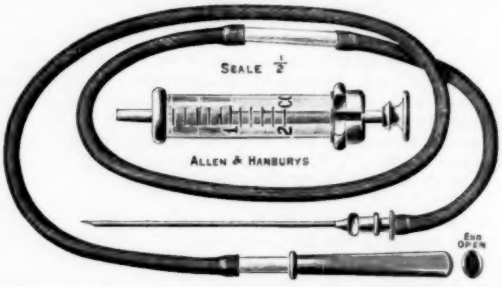
(THOMAS CHRISTY AND CO., 4–12, OLD SWAN-LANE, UPPER THAMES-STREET, E.C. 4.)

Satisfactory results are claimed for this preparation in cases of lupus, and from Germany in particular a good many clinical records are forthcoming warranting its further trial. The preparation had its origin in Hamburg and has been submitted to us in two forms—namely, a fluid for external use and an ointment. The fluid is a dilution of calcium carbonate with a watery solution of potassium phenolate and a little free carbolic acid. A published analysis of the ointment attributes to it equal parts of salicylic acid and sodium salicylate with sugar, glycerine, and spermaceti. The original idea of the inventor, who was not a medical man, was to remove the marks of tattooing, and the method of treatment being sometimes painful the use of a local anæsthetic is desirable The diseased area is painted with the fluid and covered with a linen rag bearing a thin layer of the ointment, the whole dressing being enclosed in an air-tight plaster bandage. In successful cases there is no suppuration, a dried scab forming and boric acid ointment completing the cure. We understand that Messrs. Christy and Co. will send samples of pyotropin to dermatological departments of hospitals.

New Inventions.

A SIMPLE OUTFIT FOR PARACENTESIS THORACIS.

THE simple outfit represented in the accompanying figure has been made after the model of an improvisation used with great success at the French Hospital, London, and in private practice during the last year or two. It should be considered as a portable outfit, made up of a Record syringe with assorted needles that may be used for exploratory puncture of the chest, and provided with an indiarubber tube



and teat valve so mounted that evacuation, if judged necessary, can be immediately performed without withdrawing the needle and making another puncture with a trocar fitted to a complicated aspirator. The method is simple. The puncture being made in the usual way, if fluid is found and evacuation is thought advisable, the mounted end of the tube replaces the syringe. The tube is allowed to hang vertically downwards over a basin or jar, and the fluid within the pleural cavity passes slowly and steadily along and drips through the teat valve which at once collapses if, as a result of cough, there is any attempt at back suction. The advantages of the present outfit seem to lie (1) in the simple and effective teat valve, brought to my notice by my late house physician, Dr. Didier, of Mentone; and (2) the standardisation of the tightly fitting mounts with the Record syringe and needles supplied. It is, of course, an easy matter to puncture the chest with the tube already attached (in place of the syringe) to the Record needle, but in such case there must be uncertainty whether or not fluid is present.

Messrs. Allen and Hanburys, of Wigmore-street, W., are the makers.

F. G. CROOKSHANK, M.D. Lond., F.R.C.P. Lond.

A PORTABLE VISION-TEST CABINET.

SCHOOL oculists who have to practise in places ill-adapted for their special work often experience great difficulty, especially during the winter months, owing to defective lighting arrangements. The illustration shows an inexpensive portable test cabinet by which this difficulty can be overcome. The cabinet measures 6 in. × 6 in. × 1¾ in., the front being an opal tablet which is illuminated from the back. There are four lines of letters. The illumination is by means of a headlamp and the "Davon" Battery, on which the frame rests and to which it is directly connected. A "make-and-break" contact is provided. The price is £1 15*s.*, or without battery £1 7*s.* 6*d.*

The manufacturers are Messrs. F. Davidson and Co., 29, Great Portland-street, London, W. 1.

W. R. DUNSTAN, M.B. Lond.,
Deputy School Medical Officer, East Sussex County Council.

THE LANCET.

LONDON: SATURDAY, FEBRUARY 13, 1926.

THE PAYING PATIENT.

IT would seem clear that the admission of private patients to the wards, general or special, in our large hospitals is now only a question of time, for when a common expression of public opinion becomes evident its demands cannot be neglected indefinitely. And there is no more doubt of the direction of the public mind. The reasons for this desire for an extension of the in-patient service of the hospitals are two-fold; they are quite obvious and have been set out frequently before. On the one hand, there is a widespread dissatisfaction with the cost of the private nursing homes in relation to the services which they give; and on the other hand, it is becoming more generally recognised that it is only the large modern hospital that can offer the full degree of technical efficiency necessary for the treatment of certain more serious and obscure types of disease. These are the gist of the views expressed in letters published recently in the *Times* and elsewhere, while criticism of nursing homes, a phase of which was dealt with by a correspondent in our columns recently, has been frequent in numerous journals for a long period. It is right to point out that some of that criticism has been unduly harsh. High charges may be high in respect of work done, and yet not high in respect of the cost of that work. The undertakings may be uneconomical, but that is not the same as being grasping. The private nursing homes are often much handicapped by capital charges, and it would be quite wrong to believe that large fortunes are made by their conduct. They may be often the property of one or perhaps two highly skilled and experienced nursing sisters, who have a hard task to contend with difficulties of domestic service, commissariat, and the constant repairs needed by an old and imperfect house, in addition to their essential duties in caring for the sick residents. A study of the budget of such nursing homes would show more frequently than is believed that it would not be possible to reduce charges and make any profit at all, if the endeavour is maintained to render good service. While prices and conditions stay at their present figures nursing homes will remain expensive.

But if nursing homes give much in some cases, and in others cannot afford to give more, it would be idle to defend or ignore the shortcomings of many of these institutions. They cannot replace the amenities of a well-run hospital with its purposive architecture and its special departments and laboratories, and—sometimes a most important point—its resident medical officers capable of dealing with an emergency. The demand for paying wards attached to general hospitals where laboratories and resident doctors are available in convenient buildings is not surprising; it is the logical issue of the developments of medicine running concurrently with altered domestic amenities. That more and more general hospitals in London are considering the provision of such wards and private rooms is well known to the majority of our readers, and the movement is spreading to the provincial towns. It may be added that the rebuilding of many suburban hospitals has recently added materially to the paying beds available in the districts outlying London proper. Some two years ago [1] we published a précis of the accommodation existing for paying patients of moderate means in London; the list then given would have to be extended considerably to give any idea of the facilities available to-day, and it is clear that each year will add to it. We believe that this movement represents a great public benefit, but obviously it is not without its dangers, for it implies certain changes in the conditions both of institutional and private practice that cannot be lightly considered. For reasons which jump to the eyes it is the large and increasing section of the comparatively well-to-do who are left without the best chances of treatment in serious conditions. The devoted attention of their medical advisers enables the majority of them to meet their adversities; it constantly supplies them with a care which could only have its origin in individual knowledge, and for which no institutional treatment will form a substitute. But on the one hand the patients cannot afford the draft upon their resources, and on the other no acute and intimate knowledge of pathological conditions on the part of the practitioner will change an adverse environment or supply costly material. Satisfactory environment and material have been called into existence primarily for the sick poor; how to place them at the disposal of others without encroaching on funds subscribed only for charitable purposes is a problem of great complexity. Admittedly it can only be solved with justice along lines which will ensure that, side by side with the extension of the benefits which the hospitals can offer, there shall be no restriction upon the great functions which called the voluntary hospitals into being and upon which they base their claims to public generosity. Considerable emphasis has been laid on the pecuniary benefit which the general hospitals should derive from this new venture. This is a matter open to doubt. A voluntary hospital, built upon a site which has been bequeathed to it, equipped with costly apparatus through the munificence of the charitable, and staffed by men and women who consent to give their services for negligible salaries, may be able for a relatively small weekly fee to give splendid service to sick persons of the middle classes, while showing on its balance sheet an appreciable annual profit. But it is likely that, if a ward for paying patients is run on such a basis that adequate payments are made for the true rental of the building and the cost of the technical plants and laboratories, the just charge to the paying patients will be far higher than is generally believed, granting the rights of the beneficiaries for whom the charities were founded are to be respected. The protection of these beneficiaries is a problem that has been complicated by a new factor. That the sick poor should, when able, make some contribution to the cost of their upkeep in hospital was a principle difficult to dispute. It is one which has been so famously followed out, individually or upon a group method, that many of our voluntary hospitals, placed among industrial communities, receive large annual incomes in this

[1] THE LANCET, Nov. 3rd and 10th, 1923.

way. But from the first the danger was seen that the acceptance of that principle might lead to a change in the class of sufferer treated in the wards of our voluntary hospitals. The suggestion has been made openly that the change is arriving, and that the sick poor are less often to be found in our great charitable institutions, their places having been taken by those equally sick but not so poor. Whether this be so or not, its possibility makes every precaution necessary lest the admission of paying patients lead to the catastrophe. The great need here will be the keeping of hospital accounts; and the work now being carried on to ensure that this is done on a uniform plan should be a check on abuse. The large guidance that should be received from accountancy must be remembered if a readjustment of the part played by the voluntary hospitals in communal life is to be equitable.

If the outstanding difficulty attendant on the opening of hospitals to paying patients is that of money, there remain other difficulties exceedingly hard to meet. One of these has always been prominently before the eyes of all medical men. The private nursing home leaves its patients with a complete freedom of choice as regards the services of physicians and surgeons; it is the practice for such patients to remain in the care of their own practitoners, who call in consultant advice at such time as may be deemed wise. What is to happen in the private wards of voluntary hospitals? One of the principles of these institutions has been the personal responsibility of the honorary staff to the governors for all that concerns the welfare of the patients. Is the paying patient to be denied the services of his family medical adviser, who knows all about his circumstances and his case and who out of that knowledge has advised resort to the paying ward? The honorary staff of the hospital may not care to shoulder responsibility for treatment of patients whose history in unknown save after consultation. Further, one of the principal reasons for the establishment of paying wards is the excellence of the technical attention received by the inmates of hospitals, and the paying patient will enter the ward expecting to derive his share of these advantages. The payment of consultation fees can be arranged, though it is a delicate matter, but, if the appropriate medical duties are furnished by house officers, arrangement for adequate remuneration of their services arises and does not seem to have received the contemplation that it should. We set out points which have been made in these columns and elsewhere on many occasions in order to focus attention on the things that matter. In the changes that are taking place throughout society the position of hospitals, the needs of the public, and the interests of the medical profession are changing; all should be prepared to adapt themselves to new conditions with a wish that any benefits to be secured shall be shared by others. The general position is one of flux, and at best the amalgamation of paying with gratuitous patients will be for a time an experiment. If such a system cannot be perfected, hospitals founded for the use of paying patients will arrive to meet the avowed necessities; in the meantime existing situations have to be met. Modern medicine and surgery are steadily being made available to every class of the community, but the prime reason for the existence of the voluntary hospitals must not be lost sight of nor the valuable relations between the public and their medical advisers be weakened. In the meantime the need for the improvement of many nursing homes seems proven.

INSANITY—LEGAL AND MEDICAL.

LECTURING last month at University College, London, on Insanity — Legal and Medical, Sir THEODORE PIGGOTT (who lately retired from the Bench of the Allahabad High Court) discussed inter alia the topic of irresistible impulse as a defence to a criminal charge. He explained that two recent decisions of the Court of Criminal Appeal had made it clear that this defence is not accepted by the English courts, though it is widely recognised outside this country, was countenanced by Sir JAMES STEPHEN in his accurate and lucid statements of our criminal law, and was favourably considered by an expert committee two years ago. It will be remembered that Lord Justice Atkin's committee, appointed by Lord BIRKENHEAD in July, 1922, dealt fully with this amongst other matters relating to the criminal responsibility of the insane, and made a specific recommendation that the law should be altered. The British Medical Association had proposed that a person should be held to be irresponsible if prevented by mental disease from controlling his own conduct, unless the absence of control were the direct and immediate consequence of his own default. That was what we may call the medical view of this particular aspect of insanity. The Atkin committee, which consisted exclusively of representatives of the law and the Home Office, agreed that cases of mental disorder do occur where the impulse to do a criminal act comes on again and again with increasing force until it is in fact uncontrollable. These cases, the committee observed, are not within the formula known to law as the rules in McNaghten's case. They added: "We think it should be made clear that the law does recognise irresponsibility on the ground of insanity where the act was committed under an impulse which the prisoner was, by mental disease, in substance deprived of any power to resist." They seemed a little uncertain whether the law in this respect could be changed by judicial decision or whether legislation would be required. As it seems evident that the judges are not going to move in the matter, we should like to know when legislation is going to be introduced. The Criminal Justice Bill, which received the Royal Assent last December, made many changes not only in matters of procedure, but also in matters of principle. It was an excellent and unusual opportunity for amending the law in accordance with the committee's recommendation The chance might also have been seized to carry out another similar recommendation of a minor and quite uncontroversial nature—namely, to abolish the ludicrous and illogical verdict of "Guilty but insane." But the chance was missed. The Criminal Justice Act contains not a word about insanity. These omissions are the more regrettable since it is notorious that there is a great gulf between legal and medical ideas of insanity, and that the administration of justice is impeded thereby. The recommendations of the Atkin committee would not have bridged the gulf completely, but they represented an important modification of the legal, out of deference to the medical, view.

The best possible illustration of the divergence of legal and medical opinions upon insanity is furnished by the case of RONALD TRUE, recently republished with an admirable introduction and valuable appendices in the series of "Notable British Trials." [1] The issues

[1] Trial of Ronald True. Edited by Donald Carswell, of the Middle Temple, Barrister-at-law. William Hodge and Co., Ltd. 1925. 10*s.* 6*d.*

in the case were clear-cut; the facts were not really in dispute; the legal doctrines—thanks to the interest taken by Mr. Justice MCCARDIE in analytical jurisprudence—were fully examined. The medical opinion of TRUE's state of mind was unanimous. He had been examined in Brixton prison by Dr. W. N. EAST and his assistant, Dr. YOUNG. His history was that of a man of unbalanced behaviour from childhood, addicted to morphia, and twice the victim of crashes from an aeroplane. After prolonged observation the two doctors were convinced that his was a case of congenital mental disorder aggravated by the morphia habit, and that TRUE was certifiably insane. Two alienists, Dr. PERCY SMITH and Dr. H. STODDART, examined TRUE separately at the request of his relatives. Their conclusion was almost identical. These opinions did not fit the legal view taken by the prosecution, who thereupon had TRUE examined—we are now told—by yet another alienist, Dr. R. COLE. Dr. COLE said his own examination did not disclose anything which justified him in calling TRUE insane, but he gave his opinion subject to several important reservations. Sir RICHARD MUIR, who prosecuted for the Crown, thus entered upon the trial without the support of a single expert who would say that the accused was a sane and responsible man. He relied upon the legal view of insanity, contending that TRUE clearly knew the physical nature of his act in killing GERTRUDE YATES, knew that the act was wrong, and was therefore within the law as laid down for the past 80 years. Sir RICHARD MUIR so ably and tenaciously conducted the case that the jury found the prisoner guilty and their verdict was upheld by the Court of Criminal Appeal. From that point, however, the tide turned in favour of the medical opinion. The medical evidence had been sufficient to put the Home Office upon inquiry. This being so, it was the duty of the Home Secretary to have the prisoner examined by two or more doctors in accordance with Section 2 (4) of the Criminal Lunatics Act, 1884. Mr. SHORTT appointed Sir MAURICE CRAIG, Dr. SIDNEY DYER (then medical member of the Prison Commission), and Sir JOHN BAKER (formerly medical superintendent of Broadmoor). They found TRUE to be undoubtedly insane and the execution was, as the common law enjoins, respited. The man who was sane enough to be sentenced to death was not sane enough to be hanged after all.

In TRUE's case not only the jury but a large section of the public took the legal rather than the medical view. When it was announced that he was not to be executed an amazing outcry arose. Only a day or two earlier, as it happened, a youth named HENRY JACOBY had been hanged for the murder of Lady WHITE. The newspapers were full of angry protests. JACOBY, it was said, was a poor working man's son who had killed a rich knight's widow and therefore had to be hanged, while TRUE, a well-connected man who had killed a poor outcast, was reprieved. The courts of law, it was said, had been flouted; trial by jury had been superseded by trial by Harley-street. The Home Secretary was violently attacked, but made an excellent defence in the House of Commons, and eventually the storm subsided. Out of these events came ultimately the appointment, report, and recommendations of Lord Justice ATKIN's committee. It is because those recommendations did something to reconcile the differences between the legal and medical view of insanity—differences so unfortunately emphasised in the case of RONALD TRUE—that we press the question, "When will the recommendations be given statutory effect?"

THE MENTAL EFFECT OF PHYSICAL DEFORMITY.

THE desire to appear normal, to say nothing of attractive, in the eyes of our fellows bears the marks of an instinctive process. The extent of its development varies both racially and individually, and visible defects may accordingly be invested with an emotional value dependent upon the reaction between two variables—the attitude of the multitude and the sensitiveness of the individual. Not all of us who need it can claim the equanimity of that American statesman who retorted to a commiserating friend by a verse, cast in a popular form, briefly explaining that his lack of beauty concerned himself not at all, but jarred only the beholder, and even such equanimity would fail if the defect were of a kind to excite strong aversion. It is in recognition of this fact that facial wounds received in the late war are assessed for pension purposes not merely upon the degree of loss of function, but also upon the degree of disfigurement; in legal cases the same consideration has full weight. Though people of similar training and prejudices might reach a general agreement as to the effect upon the beholder of a particular disfigurement, yet this agreement would only indicate the reaction of the herd; the sensitiveness of the sufferer cannot be expressed as an average, and extreme and unexpected variations are actually found. In some cases where a definite organ, as an eye or a nose, has been lost the patient's reaction takes the form of a feeling that the personality has suffered some grievous loss; the patient, if given the opportunity to express himself freely, complains neither of defect of function nor of actual deformity, but rather of feelings of inferiority in the presence of other people, of a loss of personal values and pleasure in life, plainly attaching to the missing organ a significance out of proportion to its physical importance. It may be assumed that unconscious determinants are at work in producing this mental attitude which, however irrational it may be, provides a strong incentive to cosmetic endeavour.

The sense of inferiority thus induced by the loss of an organ reaches its height when the external genitals are concerned, and Prof. ARTHUR EDMUNDS, in the Hunterian lecture reported in this issue, describes an operation for hypospadias which finds part of its justification in the mental reactions caused by the deformity, though there are, indeed, straightforward physical reasons for the effort to relieve this congenital defect. These Mr. EDMUNDS indicates, referring also to the social reasons that strengthen the call for operative interference, and one must admit cause for the fears that led the parents of one child to hide the knowledge of his deformity, though their policy of seclusion might itself have exaggerated other mental results. The genital organs carry such an emotional charge that, even though they remain concealed in ordinary circumstances, the reactions of the individual to any loss or defect are often greater than when he bears a loss literally upon his face. There come into play not only the unfortunate attitude of the herd to the individual, but the reaction of the individual to the awareness of his own misfortune. Moreover, in the case of children we must bear in mind that mental development in the psycho-sexual sphere is so powerful in determining the whole behaviour of the individual that, apart from endocrine influence, the physical state of the genitalia as they appear to the person concerned must play a part, though its extent may be debatable, in fashioning his reaction modes and character traits. It is known that vulgar nursery threats of mutilation have formed the nucleus of

unconscious motivations in the direction of fear or hatred. It is not unduly speculative to apply these considerations to the subjects of hypospadias; for, when the mere threat of loss of the penis can produce pathological results through unconscious mental processes, we should expect that, even if a happy fate shielded the sufferer from unkind comment, an actual defect would contain disastrous possibilities in regard to mental development.

These a priori views can only be tentative, for there seems to have been no systematic study of the mental states of the subjects of extreme degrees of hypospadias. There can be no doubt, however, concerning the relief from social disadvantages that a successful operation can bring, and the consequent saving of physiological distress is undeniable. Whether deeper feelings of deprivation can be prevented or abolished, and whether the liability to perversion mentioned by Mr. EDMUNDS can be obviated, are questions that can only be solved by psychological investigation. There remains the question of marriage, and though in mild cases operation may render satisfactory the full sexual function, yet in the cases described as pseudo-hermaphroditism the results must fall so far short of the normal that the risk of unhappiness would render marriage an experiment not to be lightly attempted. But a patient who has reached adult life, surgery having done its best for him, may be presumed to have acquired sufficient knowledge to face his own difficulties.

A COMMITTEE ON VACCINATION.

AT the International Conference on Small-pox recently held under the auspices of the Health Committee of the League of Nations (see THE LANCET, Jan. 30th, p. 243) certain conclusions were arrived at as to the methods of investigation to be adopted. These included inquiry into the essential matters over which Government control of vaccine lymph should be uniformly exercised and into the relative value of various tests devised for the estimation of its potency, and study of the affections of the central nervous system which have been reported to have followed vaccination in some countries. No time has been lost by Mr. Neville Chamberlain in responding to the suggestion made at the conference that various Governments should collect and study relevant information. It is announced that the Minister of Health, in conjunction with the Medical Research Council, has appointed a committee to inquire and report from time to time: (1) on matters relating to the preparation, testing, and standardisation of vaccine lymph; (2) on the practical methods which are available in the light of modern knowledge to diminish or remove any risks which may result from vaccination; (3) on the methods of vaccination which are most appropriate to give protection against risk of small-pox infection in epidemic and non-epidemic periods. The committee will also be charged with the duty of coördinating the work of investigation on these questions in this country and abroad, having regard to corresponding work undertaken by international health organisations. The committee consists of Sir Humphry Rolleston (chairman), Dr. F. R. Blaxall, Dr. G. F. Buchan, Dr. A. E. Cope, Dr. Mervyn H. Gordon, F.R.S., Prof. J. C. G. Ledingham, F.R.S., and Dr. J. R. Perdrau. Its secretary is Dr. J. R. Hutchinson, a medical officer of the Ministry of Health, Whitehall, S.W. 1, to whom all communications relating to the work of the committee should be addressed.

Annotations.

"Ne quid nimis."

MALARIA TREATMENT OF CEREBRAL SYPHILIS.

THE history of the attempts to treat such an intractable disease as established cerebral syphilis makes sorry reading. Prof. Warrington Yorke, who discussed the Malaria Treatment of General Paralysis of the Insane at a meeting of the Liverpool Medical Institution held on Feb. 4th, dismissed modern specific antisyphilitic treatment, including intrathecal medication, as little more effective than the older treatment with mercury ointment against neuro-syphilis. He had some hope, however, that tryparsamide might prove to be as effective in syphilis as it has been in sleeping sickness. With regard to non-specific treatment, he recalled the fact that Hippocrates and Galen knew that fevers influenced psychoses, as also did Boerhaave and Sydenham. As long ago as the middle of the nineteenth century attempts had been made to produce changes in cases of G.P.I. by the induction of abscess formation and similar processes. Later there followed in succession treatment by the injection of non-bacterial substances, such as milk, then the use of vaccines, and ultimately in 1917 the injection of living micro-organisms. In 1920 Wagner-Jauregg, in Vienna, published the results of the treatment of a series of cases infected with malaria. The technique was comparatively simple, the blood from a malarial individual being introduced into the patient either intravenously, intramuscularly, or by scarification. The investigation of 400 cases treated in Vienna during the years 1917 to 1922 showed the following results: complete remission 33 per cent. and partial remission 14 per cent. In a series of 299 cases treated in 1922 in five large British mental hospitals, 70 patients had improved to such an extent that they could be discharged from hospital. In a series of cases in the pre-asylum stage complete remissions were obtained in over 30 per cent. The latter group obviously contain a larger proportion of cases in the early stage of the disease. It is unfortunate that in many cases the condition is only arrested and the victims still remain useless members of society. At the same time many such cases become cleaner in their habits and consequently easier to nurse. It is impossible yet to forecast the ultimate result of malarial treatment, except that greater success can be hoped for in early cases. In some patients the improvement is immediate and dramatic, whereas in others it is slow and may go on for months. As regards the effect of the treatment on the serum and cerebro-spinal fluid reactions, these may become normal, but in many cases are not parallel to the clinical changes; clinical improvement may be complete and the pathological reactions remain unchanged for a considerable period and only after many months gradually move in the normal direction. Several pathologists have had the opportunity of examining the brains of remitted cases who have died from intercurrent disease; some of them showed no changes recognisable post mortem as those of G.P.I. The treatment requires some judgment and considerable experience; especially difficult is the decision as to when the attacks should be stopped. If they are stopped too soon, no benefit ensues; if they are allowed to go on too long, the patient may die. There are no means of modifying the severity of the attack: the premature administration of quinine completely spoils the results and also prevents reinfection for a period of many months. Prof. Yorke advises 8 to 12 malarial attacks as the optimum number in the majority of cases. He spoke also of the interesting opportunity that treatment of these cases had given of studying closely the phenomena of malaria. He pointed out that in these induced cases very few doses of quinine sufficed apparently to cure the patients, in contrast with the difficulty of producing this result in ordinary tropical practice.

It had been possible to establish definitely the existence of three species of malaria parasites, the parasites of each species always breeding true. In the induced cases relapse was comparatively rare, and when it did occur was long delayed. The ineffectiveness of quinine to cure the war cases and patients in tropical practice was due to the fact that they were not primary infections. The factor which governed relapse was the patient's individuality; the occurrence of relapses was in no way related to the strains of parasites with which the patients were infected, or to the drugs used, their dosage and their method of administration. He advanced a hypothesis of the process by which quinine indirectly destroys the parasites, and concluded by pointing out not only the uselessness but the actual danger of either too large doses or of too long prolonged administration of quinine.

THE FACTORY CODE.

MODERN industrial methods were born in this country and so was factory legislation. As a nation we may hesitate to-day between some legitimate pride over a legal code which has been taken as a model to be imitated throughout the world, often even imitated slavishly to the letter when the circumstances demanding some enactment do not exist, and deep-seated shame over the conditions of human life which stimulated the national conscience to embark upon this uncharted sea. The whole story of this voyage of adventure during last century, of how out of the eater came forth meat, is not retold in a book by Mr. H. A. Mess, entitled "Factory Legislation and its Prevention, 1891–1924,"[1] which lies before us; the thread of the narrative is only taken up where others have left it at the end of last century and brought up to date. The year chosen for the start is 1891, when power to control dangerous trades by special rules first became statutory, a power upon which remarkable codes, revolutionising health conditions in many industries, have been built; this period witnessed a great trade-union revival, the return of the first Labour Member to Parliament, and the first International Labour Conference. Henceforth, legislation up to the war period was directed at particular objectives rather than at such sweeping reforms as limitation of hours of labour, a matter upon which statute to-day lags far behind practice; the lead industries are controlled, phosphorus poisoning is abolished, anthrax is tackled, dust inhalation is studied, humidity in cotton-mills is investigated. At each stage the tendency becomes more and more pronounced to proceed after inquiry based on scientific evidence, rather than in answer to nebulous popular demand. Two reforms can be quoted. The first is that children have disappeared from factories; the second, which has crept in insidiously, is that adult males, previously omitted from all protective legislation, were brought within the scope of special regulations. The war period marked a new era of which the maintenance of health is the guiding star, rather than the prevention of disease; the Health of Munition Workers' Committee strove to increase output to meet national emergency and based its advice on the results of scientific investigation. Power to make welfare orders was taken and has been widely used; the safety-first movement followed. And we are brought up to date with a vast amount of complicated and piecemeal legislation waiting to be amalgamated into a consolidating Act—now long overdue. Mr. Mess describes international action in the period under review, and the coming into being of the International Labour Office; the way law is enforced and new ideas spread by the staff of factory inspectors; the creation of Whitley councils; and other kindred legislation, concerned with such things as compensation, wages, national health insurance, education, and housing. Further extension of factory legislation is held to be inevitable as scientific technique alters, and as, through research, more accurate knowledge is obtained of the human factor in industry and of its reactions to hours of labour and to such environmental influences as light, temperature, and ventilation. Such extension and research must call more and more for skilled medical work. Altogether the book, which contains a useful bibliography and is well indexed, is a careful and accurate résumé, clearly written and informative. It must be invaluable to anyone interested in that great branch of public health legislation—the factory code.

[1] London: P. S. King and Son, Ltd. 1926. Pp. 228. 12*s*. 6*d*.

CLIMATIC BUBO.

So many cases of climatic bubo have been seen in the Hamburg Hospital for Seamen during 1924 and 1925 that Marinestabsarzt (Surgeon Lieut.-Commander) Reinhard Günther was led to discuss them in the *Archiv für Schiffs- und Tropen-Hygiene* for October, 1925 (p. 546). He says this bubo has been described over and over again, ascribed in turn to malaria, dysentery, plague, trematode infection, and rheumatic fever, but is now considered in itself a distinct disease and due to infection; and while the infecting agent and the point of entry remain unknown, he suggests a probable venereal origin. Climatic bubo occurs in all tropical and subtropical regions, but also in people who have never left Europe. It attacks the glands in the groin almost exclusively, particularly the deeper glands, and, histologically, it differs from inflammations due to pus-forming cocci, for the gland capsule is thickened, the reticulum is cirrhosed, and the cells within the meshes degenerate. There is no general suppuration of the gland; bacteriologically the pus is sterile to culture and to microscopic examination (whether direct or dark ground), and inoculations of all kinds into apes, guinea-pigs, and rabbits have been negative. Six cases in all were admitted to the Hamburg Hospital for Seamen in 1921–2–3, but in 1924, 15, and 14 in the first eight months of 1925. Of the total of 35 cases, nine came from Java, six from East Asia, six from Africa, and five from South America; 15 were left-sided, 9 right, and 11 double. The ages of the patients fell between 18 and 41, usually in the twenties. Out of 30, three were officers, 16 came from the engine-room staffs, and there were 14 others. The general condition of the patients was good; they had slight pyrexia, pulse varying with the temperature, and there was no swelling of liver or spleen. The glands might be the size of a walnut or of the fist; they enlarged slowly, the deep glands enlarging first. In two-thirds of the cases the pelvic glands also enlarged, in one case so much that disease of the pelvic bones was feared. Periadenitis was rare, lymphangitis was always absent, abscess formation was focal, not massive, and the foci rarely coalesced. If the small abscesses burst through the skin the openings remained separated, with normal skin between. The course of the disease was slow and the inclination to recovery slight, but the period under treatment is not recorded. No venereal lesion to account for these buboes was ever found, but two patients had scars of old hard sores, two had positive Wassermann reactions. Iodine by the mouth and warmth or ice locally, with rest in bed, cured three early cases, and three more recovered after puncture-incisions; two cases got well after X ray treatment, incisions were needed for 23, and excision secured good results in four cases.

Two papers on this disease appeared in 1925 in the *Annali di Medicina Navale* from the pen of Captain (Surgeon) Dr. F. Virgillo, one in January (p. 1), the second in May (p. 268); in these it is called "subacute lymphogranuloma of the groin." In the January number the literature of the disease is discussed at length, and it is stated that this swelling arises rapidly, that it usually suppurates and forms sinuses, and that it always ends in a satisfactory cure. It is held identical with the "climatic bubo" of many authors, and while its ætiology is not determined the probable origin is held to be venereal. Clinical reports of seven cases are given, all in males of 21 years of age; one

was ascribed to strain, one was associated with gonorrhœa, four patients had small preputial abrasions of which they declared themselves unaware, and one had a small ulcer on the leg. There was no characteristic blood picture, this according with Dr. Günther's observations. Three patients gave a negative Wassermann and a negative cutaneous reaction for tubercle. The pus was sterile and attempts at inoculation all failed. Some of these buboes became reduced under ice-bags, some with iodine injections; excision was useful. Treatment lasted from 35 to 110 days. The glands when removed had a thickened capsule, the reticular strands, too, were thickened, the cells on them proliferating; the gland cells were thus compressed and coagulation necrosis was occurring—two large microphotographs illustrate these changes.

FLY PREVENTION IN THE TROPICS.

ON the West Coast of Africa, with its torrential rains, night-soil disposal is limited to earth disposal in deep pits, since incineration and water carriage are impossible, as is also shallow trenching. In these pits flies develop in their tens of thousands, and tend to escape in large numbers when the pits are opened to make fresh deposits. In the January number of the *Journal of the Royal Army Medical Corps* Major A. L. Otway describes a method whereby the flies were reduced to a negligible quantity. He found that flies, newly developed in the dark, make directly for the nearest point of light. He therefore kept the pit completely dark, admitting light at one point only, far from the filling orifice. He fitted a fly-trap over the point of light, and caught the flies there. The pits are about 20 ft. long, 12 ft. deep, and 4 ft. wide, roofed over with bush timber, palm leaves, and beaten earth tarred or treated with heavy oil, to shut out the light. A filling orifice is made of a sanitary dustbin without a bottom, but with a well-fitting lid, over which is a loose tarred canvas cover through which the handle projects. The fly-trap is an 8-gallon petrol tin case, about 20 in. by 10 in. by 14 in.; its top is replaced by copper gauze, and similarly protected windows are made in the sides, while a 6 in. circular hole in the bottom gives access to a gauze cone, 5 in. high and 3 in. across the top. The whole is set on an opening in the roof of the pit. Over the pit, 2 ft. away from it all round, is a thatched weather protection—light over the trap, dark over the supply opening. The first trap set up became almost immediately filled with flies; many of these were dead five hours later. If they have no way of escape to find food they die, at any rate they do not breed. An immense number of flies, estimated at 250,000, have often been caught in a week. The trap can easily be changed at night, and if it is placed far from the filling orifice, and that is kept dark, few escape. There is no offensive odour, so that the pit need not be kept a long way from dwellings. The number of flies in the area is said to have become negligible since this method of attack has been instituted. But success evidently depends largely on minute exactitude in carrying out the details of the procedure recommended, and medical officers in the tropics who wish to give the method a trial would be well advised to consult Major Otway's article.

RETROPERITONEAL CYSTS.

ACCORDING to Dr. Henry W. Cave,[1] of New York, who records an illustrative case, retroperitoneal cysts, though of infrequent surgical occurrence, are of considerable importance from the embryologico-anatomical standpoint. Most of the cases have been recorded in foreign literature. It is generally agreed that the cysts spring from some portion of the developing urogenital tract, or from some variation in the developing retroperitoneal lymphatic system. The growths, which may be single or multiple, have been classified as follows: (1) the single unilocular cyst; (2) the single cyst with smaller daughter cysts arising from its wall or cysts in the large cyst cavity; (3) a mass of cysts of approximately the same size without any connexion between them; and (4) multiple cyst adenomata. The wall is composed of fibrous tissue and the lining membrane may be loose or close connective tissue without epithelium. The contents are lymph, blood, jelly-like pseudo-mucin, or colloid; hair, teeth, or grumous material; parasitic elements; or a combination of two or more of the above. The most frequent symptom is either a localised or a general increase in the size of the abdomen, or occasionally localised pain or pain referable to pressure on the dorsal nerves. Sometimes, but rarely, there are œdema and varicosities of the lower extremities. Bladder symptoms may arise owing to pressure as the tumour enlarges in an upward direction; pressure on the bile-duct may give rise to jaundice; or disturbance of respiration may develop. There may be loss of weight and cachexia, especially if the cyst be malignant. A retroperitoneal cyst is rarely diagnosed before operation, being usually mistaken for one of the following conditions: ovarian cyst, hydronephrosis, renal tumour, or tuberculous peritonitis. In most of the cases the correct diagnosis is made in the course of an exploratory operation. The prognosis is good, recurrence being exceptional. The treatment does not involve any complicated procedures, enucleation or marsupialisation in one or two stages being all that is required. Dr. Cave's case occurred in a boy, aged 3 years, in whom the symptoms were a definite increase in the size and prominence of the abdomen, especially on the right side, and loss of appetite. A pre-operative diagnosis of tuberculous peritonitis was made. On laparotomy a huge retroperitoneal cyst was found pushing the cæcum, appendix, and transverse colon up under the liver. As the patient's condition did not allow much manipulation, it was decided not to remove the entire cyst but to evacuate the contents and establish drainage. About 850 c.cm. of dark red fluid were drawn off from the cyst, within which two daughter cysts were found, from each of which another 150–175 c.cm. were removed. After a stormy convalescence complete recovery took place.

[1] Surgery, Gynecology, and Obstetrics, November, 1925.

PUBLIC HEALTH IN JUGO-SLAVIA.

Dr. Alfred Greenwood has given the Kent County Council a very interesting report of a visit to the kingdom of the Serbs, Croats, and Slovenes, which he paid last summer under an arrangement made by the League of Nations and the Rockefeller Foundation, for the international exchange of public health officers. In the sixth of a series of articles on the machinery of public health administration abroad[1] we recently gave an account of the medical organisation of Jugo-Slavia from which it was clear that the health services of that country are in many ways rudimentary. This is certainly true; but what fills Dr. Greenwood with amazement is the remarkable progress of the last few years—progress which he thinks is unparalleled in the public health history of the world. The health department was only set up six years ago, and it is probable that its rapid development has been made easier rather than otherwise by the fact that old Serbia had no traditions in hygiene. During the war that country lost a million men, and the shortage of doctors became acute. In Jugo-Slavia there are now, however, 3000 doctors to serve a population of 12 million, and, thanks to the foresight and enthusiasm of the chief medical officer, Dr. Stampar, there are 150 whole-time specialists in public health as well as 300 part-time officers, and the number is steadily increasing. It is astonishing to read of the school clinics, tuberculosis dispensaries, venereal clinics, malaria stations, research and bacteriological institutes, maternity and child welfare centres, treatment centres

[1] THE LANCET, 1925, ii., 772.

for trachoma, and the hundred-and-one other results of a few years' endeavour. There is active welfare work in the schools (where there are some 850,000 pupils), and Dr. Greenwood says that "the treatment of defects found amongst elementary and secondary school-children in Belgrade seems in advance of our own arrangements." In the country districts there are mobile units for dealing with epidemics, and a determined effort is being made to stamp out malaria. A laboratory for research in tropical diseases was established at Belgrade in 1922, and the lowlands by the river have been carefully studied with a view to fighting mosquitoes. Chlorine gas is giving successful results. An institute of social medicine in Belgrade includes amongst its activities biometry, the study of hygiene in its application to the needs of different parts of Jugo-Slavia, and the dissemination of information to the public. Propaganda is thriving, and throughout the country there is a wave of interest in health which had led to the erection of institutes and laboratories everywhere. The housing conditions, however, especially in Southern Macedonia, are often deplorable, and Dr. Greenwood considers that more nurses and health visitors are needed. No one knows how long the public enthusiasm will last, but what has already been done sounds almost miraculous to anyone familiar with the state of the Balkans before the war, and Dr. Greenwood's report deserves wide circulation.

ELECTROLYTIC DISINFECTANT FLUID.

WHEN Faraday in 1833 wrote "On Using Solutions of Chlorides in Water—for instance, the Chlorides of Sodium or Calcium, there was evolution of chlorine only at the positive electrode, and of hydrogen, with the oxide of the base as soda or lime, at the negative electrode," he probably no more expected that about 70 years later a medical officer would propose to his authority to utilise this discovery for the manufacture of disinfectants than he did that the last section "On the absolute quantity of electricity associated with the particles or atoms of matter" of the same paper would lead to the actual determination of this quantity and of the mass of the atom itself. Dr. F. W. Alexander, in a special report on "Twenty Years Working of the Electrolytic Disinfectant Plant of Poplar," describes in untechnical language his work on the production of a stable disinfectant by electrolysing a mixture of chlorides of sodium and magnesium. He frankly states that he is not a chemist nor an electrician, and there is no difficulty in accepting this statement. He is evidently a painstaking experimenter who, in the midst of many other duties, has worked out a practical means of carrying out an idea and has exploited his product with all the ardour of the pioneer. The use of chlorine obtained by electrolysis as a disinfectant, as Dr. Alexander shows, is not new. The merit of his preparation is that he seems to have produced a hypochlorite solution relatively free from chlorate and rendered stable by a slight excess of base, the presence of magnesium salts in the solution preventing so large an excess as would render the liquid inactive. Actually Dr. Alexander has used magnesium hydroxide as a stabilising base but, as he points out, soda should be equally efficacious. An interesting part of the report deals with the very difficult question of swimming baths. Dr. Alexander describes very fully the many unpleasant ways in which these otherwise excellent institutions become contaminated and may thereby spread infection. Anyone who has visited the outdoor and indoor swimming baths in and around London must feel that they are sources of pleasure and, in the main, of health to hundreds of thousands, and yet that the risks of bathing in the highly concentrated extract of human surfaces are not altogether to be ignored. The remedy is not clear. Dr. Alexander advocates the use of his own hypochlorite disinfectant and, where it can be afforded, filtration. Open-air baths are favourably situated for the action of air and light on the water and on the skins of bathers. The water of these baths is usually well aerated owing to the rapid growth in the bathing season of green organisms. These minute plants abstract the CO_2 from the bicarbonate in the water, retaining the carbon as body substance while the freed oxygen goes into solution. The calcium carbonate falls to the bottom as mud and the water becomes softer and more alkaline. The larvæ of midges are usually plentiful, and frequently water-beetles, and particularly the water boatman, forced to escape by flight from drying up ponds, thrive in such baths. The use of disinfectants stops all this but does not clean the water. Filtration removes suspended matters and gives an extremely clear, bright liquid. It does not sterilise the water. Disinfection and filtration yield a clear and sterile liquid, but it is difficult to feel that this is as good as fresh water, which is costly. The continued use of such a "cleaned-up" liquid must lead to great concentration of organic matter which, although sterilised, is not oxidised.

Twenty years ago THE LANCET supported Dr. Alexander in introducing his electrolytic disinfectant. His latest report, which he hints is a swan song, is an earnest contribution to the solution of a complicated question, which nevertheless does not appear to be finally solved.

"THE BULLETIN OF HYGIENE."

IT is estimated that about 25,000 scientific journals are now in circulation. To keep in touch with more than a few of them is beyond the powers of an ordinary man, and it is only justifiable to add to the number if the addition is designed to collate important information from many. This is a real service. It may confidently be expected that the *Bulletin of Hygiene*, issued by the London Bureau of Hygiene and Tropical Diseases (of which the first number has just appeared), will fulfil its promise and become recognised as one of those journals which have a useful function. The *Bulletin* resembles the *Medical Science Abstracts and Reviews*, which used to be published by the Medical Research Council, in that it is a collection of précis of papers published elsewhere. Its scope, however, is nothing like so wide. It deals primarily with hygiene rather than general medicine, and apart from the section on tropical diseases it is mainly restricted to publications written in English, though suitable papers and reprints in any language, if sent to the Bureau, will be noticed as far as possible. This limited field makes it possible to give more expansive notice to each paper than was possible in *Abstracts and Reviews*, and the resulting journal is rather more readable though less comprehensive and ambitious. It is to take the place of the old Sanitation Supplements, now discontinued. A representative list of contributors and commentators is given at the beginning and we forecast success for the new literary adventure. We hope that it will be an editorial policy to take more notice of foreign publications.

AN EIGHTEENTH CENTURY ESSAY ON GOUT.

William Cadogan was an eighteenth century physician who, like his mediæval predecessors and certain of his contemporaries and successors, such as William Kitchiner, John Paris, and Thomas King-Chambers, did not disdain to discuss the problems of diet, the iniquity of quackery, and the folly of polypharmacy. Though prominent during his life he has suffered "the iniquity of oblivion," and there are few to-day who could say much about him. From this neglect he has been rescued by Dr. Ruhrah, who in a charming little book [1] has republished the essay on Gout, and a friendly satirical poem or poetical version thereof by a Mrs. Ireland, together with an informing introduction giving details of Cadogan's life and work. He was born in 1711, entered at Oriel College, taking

[1] William Cadogan: His Essay on Gout. By John Ruhrah, M.D. New York: Paul B. Hoeber. 1925. Pp. 114. $1.50.

his B.A. in 1731, studied medicine on the Continent, and took his doctor's degree at Leyden in 1737. Returning to England he served for a short time in the army and then settled in Bristol, where he was living in 1752, when made a Fellow of the Royal Society. In 1754 we find him in London as physician to the Foundling Hospital. In 1755 he took the three degrees of M.A., B.M., and D.M. at Oxford, and in 1758 was elected to the College of Physicians, of which body he was four times censor and upon two occasions Harveian orator. He lived in George-street, Hanover-square. He wrote an essay upon Nursing and the Management of Children, as well as the better known essay on Gout. This essay on Gout, which was originally published at 1*s.* 6*d.*, is written in the scholarly and dignified English of the period and had a great vogue. It was evidently widely read and was the subject of much discussion, giving rise also to satirical "Enquiries" and the amusing poem by Mrs. Ireland referred to above. The book, first published in 1772, is a reasoned argument upon the uselessness of drugs for the cure of gout and upon the necessity of leading a rational life free from indolence, intemperance, or vexation, which calls to mind the lines in the "Regimen Salernitanum"—

"Medici tibi fiant
Haec tria, mens hilaris, requies, moderata diaeta."

Cadogan's remarks upon diet are sound enough, and his diatribes against quackery even more applicable to-day than when they were written. He was in advance of his times in his strong recommendation of massage (p. 90) and gentle exercise, the latter to be gradually increased. Dr. Ruhrah and his publisher are to be congratulated upon having given to the profession so charming a reprint of an excellent essay.

IN view of the large number of inquiries received, the Ministry of Health desire to make it clear that persons engaged in excepted employment—e.g., railway clerks and certain local government employees earning not more than £250 a year—may be qualified to become voluntary contributors under the combined scheme of health insurance and Widows', Orphans', and Old Age Pensions, if they have been insured under the National Health Insurance scheme for at least two years at any time since July, 1912, or if they served in His Majesty's Forces for at least two years during the late war. Any such persons who desire to avail themselves of this right should get into touch with an approved society, or if they do not wish to join a society, with the Ministry of Health. As voluntary contributors they would be required to pay the full weekly contribution (normally 1*s.* 6*d.* for a man and 1*s.* 1*d.* for a woman), but where pensions contributions are also paid in respect of their employment, suitable arrangements will be made to refund any contributions paid in duplicate.

PUBLIC HEALTH COURSE FOR NURSES.—The public health section of the College of Nursing has organised a course of study and lectures, lasting from April 1st to 15th, to assist nurses of the public health staff in their professional education. The courses held in the two weeks may be taken separately if desired, and, for both or either, grants may be given by the local authorities (under the Maternity and Child Welfare Act with the approval of the Ministry of Health) to cover the expenses of the nurses. The study and coaching week has been arranged during the Easter holidays to make it easier for nurses to attend, and this week starts on April 1st. The post-graduate week lasts from April 8th to 15th. The study week will be under the charge of a tutor and will include classes in anatomy, physiology, and hygiene, and lectures on sanitary law. During the post-graduate week there will be lectures on Poor-law reform, State insurance, cancer research, sunlight treatment, the maternal mortality-rate, diseases of early infancy, encephalitis lethargica, the wife under English law, and the lost heritage of childhood. Amongst the lecturers will be Sir Henry Gauvain, Mrs. Crofts, Sir John Robertson, and Mr. Cecil Chapman, and it is hoped that medical officers of health will assist by permitting as many of their nursing staff to attend as possible. The course will be held at the College of Nursing, Henrietta-street, Cavendish-square, W. 1.

Modern Technique in Treatment.

A Series of Special Articles, contributed by invitation, on the Treatment of Medical and Surgical Conditions.

CLX.—TREATMENT OF MOVABLE KIDNEY.

THE failure to appreciate that any abnormal or pathological condition found on examination is not necessarily responsible for symptoms has led to much loose thinking over the movable kidney. In the asthenic state the patient complains of weakness, of being easily tired, and of vague pains, especially in the abdomen; clinical signs are usually absent. As the most conspicuous feature is a want of nervous tone, the name neurasthenia, which literally means a *weakness of the nerves*, has been applied. Probably no word in medicine has been more misused, for it has come to denote anything from laziness to insanity. Unfortunately this condition is constantly confused with the psychoses and neuroses, which resemble it in so far as no clinical signs are found. In these, however, the symptoms depend not so much on a want of tone in the nervous system as on a perverted activity. Neurasthenia is frequently associated with visceroptosis; on the erroneous supposition that ptosis of the viscera is the cause of asthenia, treatment has been directed to the kidney, which is the most easily palpated of prolapsed organs. Attempts to suture it firmly into its normal position were at one time common practice The fallacy of suturing the kidney or its capsule to the lower ribs, an operation at one time popular, is obvious. During inspiration the ribs ascend and the diaphragm with the underlying viscera descends. When the kidney is sutured to the ribs it moves upwards during inspiration, and, as the liver moves downwards, the kidney is constantly contused. Fortunately for both the patient and the kidney the sutures usually give way. While visceroptosis is apparently on the increase and is responsible for much suffering, suture operations are being more and more rarely performed. To-day the fashion is to assume that because a movable kidney is found in healthy people and permanent improvement rarely followed suturing it in place, it never can give rise to trouble. The symptoms are attributed to auto-suggestion and the patient is sent to the psychologist. While the suffering in the mass is probably less than in the days of the big operation, much unnecessary suffering does still occur.

The normal position of the viscera in the living is difficult to ascertain, since evidence from the post-mortem and dissecting-rooms, from abdominal operations, and from palpation during a clinical examination are, for various reasons, unreliable. The outline of the stomach and intestine and the pelvis of the kidney can, however, be shown up by substances opaque to the X rays such as barium and sodium iodide, and by this means definite information as to the anatomy of the living can be gained. It is found that not only does the position of the viscera vary with the posture adopted, but that in scarcely any two individuals is it the same. When a standard is taken as that to which the majority of people conform, extreme variations may exist with perfect health and no symptoms. We may conclude that an abnormally placed or mobile organ gives rise to symptoms only if its own function is affected or if it interferes with that of some neighbouring organ. It is only when other causes have been excluded, and when disordered function is attributed to the displacement, that treatment should be directed to it. At the same time, it must be remembered that such an organ is heir to all the diseases that may affect the normally placed.

Relation of the Movable Kidney to Nervous Disorders.

When symptoms of neurasthenia are associated with a movable kidney no permanent improvement follows operation. In both neurasthenia and visceroptosis there is a want of muscle tone. It is probable that when they coexist, as so often happens, both are dependent on the same cause. Therefore, little

improvement is to be expected from fixing the kidney, apart from that due to the enforced rest in bed, feeding, and suggestion. The constant traction upon the sympathetic system is supposed to lead to a feeling of tiredness at the end of the day and eventually to neurasthenia. It is difficult to understand how this could account for the general want of tone. Fortunately, a device such as the Curtis belt, which by supporting the lower part of the abdomen exerts pressure in the direction of the normal pull of the muscles, will relieve any traction from the prolapsed viscera, particularly when combined with a period of rest in bed and a suitable diet. Belts designed to exert pressure upon the lower pole of the kidney below the costal margin are not recommended. Palpation of this region, with the patient standing, shows that considerable pressure would be required to have any action, and would interfere with the function of neighbouring organs such as the colon. Moreover, the pressure from such a belt is opposed to that normally exerted by the upper abdominal muscles.

A patient who accidentally finds a lump in the abdomen, or has been told that a kidney is movable, may attribute symptoms to this cause. Such symptoms bear no definite relationship to disordered function of the kidney. There is in these cases not only a want of tone of the nervous system, but also marked instability. Experience has shown that operation upon the kidney rarely leads to a cure, for pain is complained of in the scar, or the symptoms that persist are referred to some other organ. Operation is definitely contra-indicated in these cases, which are more suitable for the psychologist, and may yield to psychotherapy combined with the treatment usually prescribed for asthenia.

Indications for Operation.

It has been suggested that when the symptoms disappear with rest and return on standing fixation of the kidney is indicated. This, however, is found in both neurasthenia and visceroptosis. It is only when the mobility interferes with the function of the kidney or that of the neighbouring organs—and this condition may, of course, coexist with general visceroptosis and neurasthenia—that operation is called for. The indications for operation may be divided into three classes :—

1. Where a movable kidney on the right side causes traction on the duodenum. This is rarely seen. When present it gives rise to attacks of vomiting that are always relieved by lying down, and must not be confused with the gastric symptoms due to visceroptosis. Vomiting due to other causes must be definitely excluded.

2. When the mobility leads to attacks of pain resembling renal colic and known as Dietl's crises. Here operation is indicated, not only because the attacks will certainly recur, but also because pathological changes in the kidney may be developing. Pain during an attack may be relieved by draining the pelvis of the kidney by means of the ureteral catheter. Such attacks are probably due, not to torsion of the renal pedicle, but to acute kinking of the ureter, for they can be immediately relieved by the passage of a ureteral catheter and reproduced by distension of the pelvis.

3. When some obstruction of the ureter interferes with the normal peristalsis of the ureteral muscle the flow of urine is impeded. Dilatation of the renal pelvis with the formation of a hydronephrosis results, and gives rise to pain that is renal in its distribution. It is generally referred to the angle between the last rib and the erector spinæ in the lumbar region, less commonly to a point below the tip of the ninth costal cartilage or to the iliac fossa ; occasionally it radiates into the groin or genital region (see diagram). It may or may not be aggravated by exercise, but is generally relieved by lying down. Pain in these regions may be due to disease of other organs. That due to a hydronephrosis results from distension of the pelvis, and the great test is that pain of a similar nature and referred to the same place can be produced by injecting fluid up the ureteral catheter. Unless the pain can be thus reproduced, one should be most guarded in attributing it to a movable kidney. In many cases more urine than is normal can be drawn off from the ureteral catheter, and more can be injected before causing pain. If the injected fluid is a 12 per cent. solution of sodium iodide, the skiagram may show some dilatation of the renal pelvis. The amount that the normal pelvis

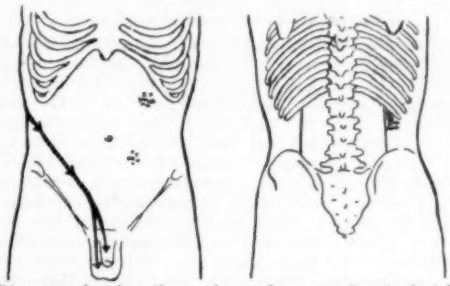


Diagram showing the regions where renal pain is felt.

holds is very variable (from 5 to 20 c.cm.) and dilatation means that pathological changes have taken place, and as our aim should be to apply treatment before this has happened, the first sign is that a pain similar to that complained of can be produced by distending the pelvis.

Hæmaturia is sometimes seen apart from Dietl's crises. When the common diseases that give rise to it have been excluded, it suggests that dilatation of the pelvis is taking place and is an indication for operation.

Technique of the Operation.

The lumbar incision should be sufficiently long to allow the pelvis and the upper end of the ureter to be examined. The kidney should be approached as if it were one giving rise to pain that is difficult to explain. Such conditions as a pure uric-acid stone or a papilloma of the renal pelvis, which often escape our present methods of investigation, should be borne in mind. If there is any doubt, the pelvis should be opened and explored and a probe passed into the calyces. Aberrant renal arteries are often found and should be divided. Probably a more constant cause of disordered function are certain fibrous bands found compressing the ureter. They probably correspond to the fibrous bands which pass between the capsule of the kidney and the perirenal fascia. If present, they should always be divided. The perirenal fat is then removed, and the capsule of the kidney is reflected outwards and attached with strong catgut to the quadratus lumborum. The sutures should not penetrate the cortex of the kidney. If the neighbouring viscera are lying very low the kidney should not be fixed in the normal position, as its pedicle is likely to be compressed. The patient should be kept lying down for at least three weeks ; it is unnecessary to have the foot of the bed raised. A Curtis belt should have been ordered before the operation and should be worn in bed after the stitches have been removed, since its pressure may give rise to some discomfort at first. If the skin is treated with spirit and talc and the belt worn for a longer time each day, the discomfort should have disappeared by the time the patient is allowed up. Active exercise should only be gradually resumed. The view that the presence of the movable kidney must be concealed from the patient dates from the time when the pathology of the condition was by no means clear and must not be allowed to interfere with proper investigation of symptoms on lines indicated above.

Of the movable kidneys that are discovered during routine examinations, probably less than 2 per cent. will require operation and the greatest care should be taken in their selection.

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Special Articles.

THE DOCTOR'S CAR.

(FROM OUR MOTORING CORRESPONDENT.)

How to Adjust Four-Wheel Brakes.

BRAKING on all wheels is ideal when the system is properly adjusted; otherwise it is highly dangerous. Although it is almost universal practice to set the rear brakes to touch first, there is a lot to be said for allowing the lead to the front pair, for contrary to what might be supposed the back of the car is much more inclined to stay behind the driver when the front wheels are braked, especially on a down-grade. If the front wheels lock, however, the steering is completely useless; but this should never happen to a careful driver, who will use his hand-brake instead of applying the last ounce of force on the pedal. Many authorities prefer to use the pedal chiefly for the front wheels and rely on the hand-brake to apply the last ounce of force on the rear.

The most important point is that each pair should go on absolutely together, and the following is the best way of ensuring this. We will assume that the rear brakes are to have the lead. A sits in the driving seat and B slacks the thumb-nuts of the front brakes well off. He then sets up the back brakes so that they just touch when the pedal is not pressed, and the best way of discovering the exact point at which the shoe touches is to tap the drum with a pocket-knife and note when the metallic ring is deadened. B then slacks the nuts back two turns each and, holding a knife or small tool in each hand to tap the drums, commands A to press the pedal very slowly. B, keeping up a continuous tapping on the drums, can then hear if one brake comes on before the other and adjust accordingly. When the back brakes are synchronised he goes to the front and gets A to put on a light pressure, as he would if he wished to slow down for a block some distance away with plenty of time in hand. B then tightens the nuts till the ring is deadened and tests with A for synchronisation, just as he did at the back. This will give a good, efficient setting. It is vital to keep four-wheel brakes properly adjusted, as to drive on a greasy day with one front brake going on long before the rest is to ask for serious trouble. Incidentally, the introduction of four-wheel braking forces makers to fit much more convenient adjusting nuts than they ever used to supply for a single pair of brakes.

Car Prices in 1926.

Now that the market is at a low ebb for both new and second-hand cars, many practitioners will be considering purchase. They would be well advised not to delay, as the spring always produces a large crop of orders and the more popular makers develop a long waiting-list. Moreover, the price of second-hand cars goes up with a rush. The *Motor* recently issued as a supplement a booklet which gives the price, engine dimensions, tax, and particulars of the gears and brakes of nearly every car on the English market, with the maker's address. Medical men who are thinking of buying a car should expend 6*d.* on a copy. Except for the Ford 2-seater at £120, the cheapest car remains the Trojan, all models of which are fitted with pneumatic tyres for £5 extra. The pneumatic-tyred touring model is £130 and the saloon £158. Next comes the Austin 7 at £149 and the Jowett 7 at £150, with the saloon at £200 on a longer chassis. The Jowett has slightly the larger engine, and pulls its saloon with surprising ease, but the baby Austin is extremely fast and lively and is conspicuous for its leg-room; its "boot" will hold a great deal of luggage. It has four-wheel brakes, but the front and the back wheels are braked independently. Then there is the small Peugeot 7 at £155, or £165 with the cabriolet body. This is the smallest car in the list, having a capacity of only 719 c.c., but develops amazing power for its size. The Morris-Cowley 2-seater is wonderful value at £162 10*s.* without and £170 with f.w.b. The fixed head coupé at £195 will appeal to many practitioners. This car has very sweet controls and an exceptionally silent and trustworthy starter. Clyno make an 11 and a 13. The right-hand control and the large front-wheel brakes are good features. Two qualities of bodywork are fitted to the 11; the Standard 2-seater with f.w.b. costs £170 and the Royal £210. The 13 2-seater costs £245 and the coupé £285. The Chevrolet 20 is another example of the cheap American school at £165 for the 5-seater. The Rover 9 superseded the well-known air-cooled 8, and has a very efficient overhead-valve engine; the 2-seater costs £185, and another old-established firm (Lea-Francis) make a 10 and a 12 at £210 and £275 with four-wheel brakes (f.w.b.) for the 2-seater. The Gwynne 8 with its lively little engine costs £225. From this price upwards there are an embarrassing number of sound propositions. The Morris-Oxford has the virtues of the Cowley combined with a larger engine and more luxury. The 2-seater costs only £240, and the covered models £295 (three-quarter coupé) and £330 (cabriolet). A.C.'s have a new Sovereign model at £250. The Wolseley 11–22, with f.w.b. optional, is popular with the practitioner, since it has a certain air of dignity as well as being a first-class motor-car. The two 2-seater models cost £235 and £265, and the light saloon £295. The Essex 6-cylinder coach has come down to £280. The Hillman 14 touring car at £295 is a fine example of medium-powered English practice, and another model new this year is the Standard 12, which with the all-weather touring body costs £275. For those who can afford up to £400 there are the Armstrong-Siddeley 14 at £330 for the 2-seater with f.w.b.; the Hampton 12 coupé at £345 with f.w.b.; the Phœnix 11·9 all-weather at £365; the Riley 12 saloon with f.w.b. at £395; and 6-cylinder Overland 22 saloons at £340 and £375, with f.w.b. Studebakers' make three 6-cylinder cars rated at 27, 29, and 35. The 27 2–3-seater touring saloon is good American value at £390. All these cars have hydraulic f.w.b. It is extraordinary how few cars are priced between £400 and £500. This seems to be the gap between two distinct markets. The Cluley 14–30 saloon (f.w.b.) at £475 and the Crossley 14 coach (f.w.b.) at £455 do their best to fill it; the Calthorpe 6-cylinder 15–45 (f.w.b.) also comes in this interval with £425 for the touring model, which is very good value. Over £500, however, the range of choice is almost infinite. The Humber 12–25 coupé or saloon at £555 is a splendid and reliable car; Vauxhalls' make two open 14–40 models with f.w.b. at £550; the Canadian Buick 20–58 overhead valve 6-cylinder with f.w.b. and 4-door saloon costs £550. The Talbot 12–30 6-cylinder coupé at £555 and the Rover 14–45 coupé with f.w.b. at £660 are first-class English cars.

For the few who look higher there is the Aston-Martin 11·9 coupé at £825. The touring model costs £725. This is in a different class from all other small cars. The chassis is made up entirely by hand, and the parts are mated by craftsmen; when it is completely assembled it is run in thoroughly, and the owner can then do what he likes with it, without any attention but ordinary greasing and cleaning. Daimlers' have six distinct 6-cylinder chassis to choose from, varying from 16 to 45 h.p. with a wide choice of bodywork for each. All have the silent Knight engine. The 16 saloon "Y" costs £715; this has three speeds; all the others have four. The 30 enclosed laudaulet costs £1900, and the type N 45 costs £2250. Bentleys' make a very fine 15·9 light tourer at £995 and a standard coupé at £1350; and the Rolls-Royce 20 6-cylinder chassis at £1100, with f.w.b. £85 more, is now well known. Lanchester 21 6-cylinder short chassis at £1000 and long chassis at £1050; the Ford-Lincoln 8-cylinder 5-seater coupé at £1350; the Hispano-Suiza chassis at £1650; the Isotta-Fraschini chassis at £1550; and the big Rolls long chassis

at £1900 are other examples of the most expensive class. The largest engine on the market is that of the Renault 45 6-cylinder, the capacity of which is 9 litres. The long chassis costs £1050.

On Gloves.

Not many doctors clean their own cars except in an emergency, but if this should arise a pair of waterproof gloves are invaluable. The "Cozee" washing-glove (H. Baily and Co., Ltd., Glastonbury, Somerset) is made of best English sheep-skin, chrome-tanned by a special process, and is impervious to water. The thick soft fleece will hold water but no grit, is very soft on paint-work but effectually loosens the dirt. Inside the glove is a convenient grip-bar, with slots for the fingers, and a cow-hide cuff protects the user's wrist, around which it tightens with a strap and a rustless buckle. The dimensions of the glove are about 11 in. and 9 in., and its price is 8*s.* 6*d.* Dry, it makes an excellent polisher. If such gloves are not available, rubber gloves of which the wrists can be tied over a mackintosh, can be obtained at 6*d.* each at Woolworth's. Before starting operations involving the use of grease or oil, without gloves, both hands should be rubbed over with nearly dry soap and the nails filled up. Should this precaution have been omitted, Gresolvent is useful for cleaning hands. On the subject of gloves, every motorist who drives at night, especially in suburbs where traffic is thick, lives in fear that overtaking cars may not see his signalling hand. A loose white gauntlet without fingers, such as any needlewoman can make in 20 minutes, slipped over a driving-glove is conspicuous even in a dim light.

Pictorial Road Plans.

The third of the series of pictorial road plans, published at 6*d.* each for the Dunlop Rubber Co. by E. J. Burrows and Co., 43, Kingsway, London, has reached us. It describes the Bath-road and the alternative roads from London to Milford Haven, via Brecon and via Cardiff and Swansea. The little pictures of places and things to be seen on the road will enhance the pleasure of the run. Milestones are clearly marked and the height of the road above sea-level indicated at various points. Clear large scale maps of every important town crossed are given. The only suggestions we would offer concern these. Experienced motorists passing through Reading towards Bath do not follow the road outlined, but take the more direct route through Berkeley-avenue, avoiding much traffic and rejoining the main road just before it crosses the Great Western Railway. The town of Bristol presents exceptional difficulties to the stranger, who will welcome the help here given; the indication of the position of the "tramway centre," to which he is sure to be referred by friendly townsmen or the local police, would put him in a position to make intelligent use of their advice

MEDICINE AND THE LAW.

POINTS FROM RECENT INQUESTS.

THOUGH the Home Office has not made conspicuous progress of late with legislative proposals in which it is interested, there is hope that Parliament may shortly pass the Government Bill for amending the law relating to coroners. If so, the whole subject will doubtless be dealt with thereafter by a consolidating statute. Meanwhile inquests continue to disclose points worth considering when the amendment of the existing law is undertaken. At the Wiltshire Assizes a fortnight ago John Lincoln was charged with the murder of Edward Charles Richards. An inquest had been opened on the death of Richards, but the coroner (Mr. A. L. Forrester) had exercised a wise discretion in confining the inquiry to evidence as to the nature of the dead man's wounds, the question of criminal responsibility having been taken up by the magistrates. While the inquest stood adjourned, the trial at the assizes proceeded and resulted in the conviction of Lincoln as the murderer. There was thus no further need for the coroner to investigate the cause of Richards's death, and the jury were brought together again to record a formal verdict. As the evidence at the inquest had been confined to the wounds only, the coroner suggested that the verdict should be that the deceased was shot by a person not identified and against whom no evidence had been offered in that court. The coroner's jury evidently stood upon its dignity. One juryman is reported by the *Times* to have objected strongly to a jury being asked to agree against its own convictions. Eventually, after a long absence, the suggested verdict was returned, but the foreman announced that the jury decided to add a rider, and, when the coroner refused to accept any rider, said: "We are of opinion that there has been a grave miscarriage of justice."

Provision is made in the Coroners Bill for avoiding the simultaneous conduct of proceedings before magistrates and coroner in such a case, but it is interesting to note that coroners' juries may resent the usurpation of their time-honoured functions. Where the cause of death is conclusively established by a conviction for murder, it might be better to let that fact operate as the termination of an adjourned inquest.

Another matter for consideration in any amendment of the law is the question of the place where inquests are to be held when death is the result of a motor accident. At present an inquest is held at the place where the body lies. The proper place, suggests Mr. C. W. W. Surridge, the Manchester city coroner, is the place where the accident occurs, where the coroner and jury (if a jury is required) can contribute and employ the knowledge they possess of the locality. "The barrier," said Mr. Surridge, "which prevents this common-sense procedure is that the law enforces the viewing of the body by the coroner; I deeply regret that the draft of the new Coroners Bill perpetuates this useless anachronism." Here, as in the Trowbridge inquest, one detects the survival of the ancient function of the jury, which was to declare the facts they knew rather than to listen to evidence of which they may be supposed ignorant.

Nothing seems to be attempted by the Bill in the direction of another quite different matter—the holding of inquests by coroners into outbreaks of fire. There has been some official backing for this proposal, and it has been strongly advocated by Dr. F. J. Waldo, who, as coroner for the City of London, has unique jurisdiction of this nature. There are frequently occasions where arson is suspected and where judicial investigation would be valuable, though it may be that the coroner is not necessarily the best tribunal for the purpose. Yet another question of the coroner's functions is raised by a recent incident at Leigh. There was something of a scene at an inquest, one herbalist after another being removed protesting from the coroner's court. A correspondent of the *Manchester Guardian* asks under which section of the Coroners Acts a coroner can consider himself authorised to hold an inquest where people are attended by an unregistered medical practitioner. He suggests that, if a coroner acts for any other purpose than to inquire into the death of a person within the provisions of Section 3 of the Act of 1887, he exceeds his powers and justifies a protest. Each case depends, of course, upon its own set of facts, and there is the high authority of Mr. Justice Stephen for the principle that the coroner cannot hold inquests as a mere matter of caprice. "It would be intolerable," observed that judge, "if he had power to intrude without adequate cause upon the privacy of a family in distress, and to interfere with their arrangements for a funeral. Nothing can justify such interference except a reasonable suspicion that there may have been something peculiar in the death—that it may have been due to other causes than common illness." Without denying the truth of these dicta, it may be added that the coroner's discretion is not likely to be interfered with lightly.

If he does not hold an inquest when he should, the courts will direct him to investigate. If he holds an inquest when he need not, there is only the indirect remedy of addressing the Lord Chancellor for his removal. As to the particular case under discussion, it is perhaps sufficient to say that if coroners are expected and entitled to investigate allegations of negligent treatment by practitioners, the qualifications and methods of the person administering treatment are circumstances of material significance.

REGISTRATION OF OPTICAL PRACTITIONERS: A NEW BILL.

The draft of a Bill to secure "the registration of optical practitioners and to regulate the practice of sight-testing and optical dispensing and for purposes incidental thereto," has been issued by the Joint Council of Qualified Opticians. The Bill is largely modelled upon the Acts which govern the profession of dentistry and is an ambitious proposal to standardise two new professional types, optometrists and dispensing opticians, and to set up a central optical board, a register, and a monopoly of practice. We find in the Bill no defined or assured standards of teaching, training, examination, or conduct. This would seem inevitable, since the standards and the system of education for the new profession, to which the Bill proposes to grant privilege and protection, do not yet exist; nor is there any college or other institution which can suitably furnish them. It is unlikely that Parliament would consent to grant a vocational monopoly in these circumstances, and ophthalmologists who feel strongly that such innovations would be against the public interest need not, we think, be disturbed by the introduction of this Bill.

VIENNA.

(FROM OUR OWN CORRESPONDENT.)

Suicides in Vienna.

IN the year 1925 the number of persons who committed suicide was 2259, of whom 53 per cent. were males. In 1914 the figure was 1286. It fell during the war to reach 700 in 1917, but since then there has been a fairly steady rise. For the first four years after the war the number stood at about 1200 (though it fell to 923 in 1922), but in 1923 it rose to 1458, in 1924 it was 1870, and last year it jumped up again to the huge total mentioned. During the same period the population has been steadily falling—in 1914 it was 2,120,000, in 1920 1,806,000, and in 1924 1,801,000—and the inference is that economic and psychical conditions in this city are far from satisfactory. The most usual means of suicide is by poison.

Lawyers and Abortion.

At a mass meeting of the practitioners of the ninth Vienna district at which the problem of the interruption of pregnancy was discussed, an important statement was made by Dr. Altmann, President of the Court of Justice, who pointed out that the attitude of the courts at the time of passing the law (1759, 1802, 1841) was that of strict condemnation of abortion except when the life of the mother was in actual danger. Even then it was not very easily accepted. Up till quite recently the standpoint of the courts hardly changed at all, and except during the few years of the war, when vigilance relaxed somewhat, the same conditions prevailed. Two years ago, in fact, a renewed warning to the profession was issued by the Supreme Court. This met with indignant repudiation from many quarters, especially from eugenists. The new Act dealing with this subject, which is in preparation, recognises the necessity of taking into consideration not only danger to life, but also danger to health as being possible indications for abortion. Prof. Tandler, head of the Municipal Board of Health and Charities, strongly advocated in the discussion the necessity of recognising the social or economic factor as an indication for medical abortion. He is in favour of handing over the decision in each case to a committee of three, consisting of a physician, a public officer of law or administration, and a mother. This body would have to consider the case individually, and if it agreed on the advisability the operation would be allowed. The increase of population by the offspring of the mentally defective, the syphilitic, and the morally insane ought, he considers, to be prevented if possible.

UNITED STATES OF AMERICA.

(FROM AN OCCASIONAL CORRESPONDENT.)

The Prevalence of Cancer.

ALTHOUGH it is generally believed that cancer is rapidly increasing, a statistical study just published in New York does not support this view. The statistical bureau of the New York Metropolitan Life Insurance Company has issued a report on an analysis of deaths from cancer amongst its industrial policyholders covering a period of some 14 years which deals with 90,175 cases. Dr. Louis L. Dublin and his assistants, who are the authors of the report, are distinctly reassuring about the situation, and conclude that the increase in cancer has been small—much smaller than might be inferred from an analysis of the published crude death-rate. Such as it is, the increase has been confined almost entirely to males, though the death-rate from cancer has always been higher amongst females. The increase has been largely in the later age-groups in each sex, perhaps because the average span of life has increased during the past 30 or 40 years. The white race is more prone to cancer than the coloured, and some nationalities of the white race are more susceptible than others. According to the annual report of Dr. A. Lessard, Director of the Bureau of Hygiene of the Province of Quebec, the citizens of English nationality appear to be more susceptible to cancer than their French Canadian neighbours, and the report of the Metropolitan Life Insurance Company states that the Russian immigrants seem most susceptible, that the Irish come next, and that the English, Scotch, and Welsh are affected in that order. The Italians are remarkably free from malignant disease, and the question naturally arises what light this throws on the influence of diet.

Pan-American Red Cross Conference.

Seventeen nations have been invited by President Coolidge to attend the second Pan-American Red Cross Conference to be held in Washington from May 25th to June 5th next, under the auspices of the League of Red Cross Societies. It is expected that arrangements will be made for concerted relief for the victims of earthquakes and other major disasters, and for the participation of the societies represented in schemes designed to raise the standard of health of the entire Western Hemisphere. The agenda of the conference includes such subjects as child welfare, prevention of infantile tuberculosis, school hygiene, organisation of summer colonies and school dispensaries, popular health instruction, and the combating of malaria, hookworm, and other diseases. Besides Canada and all the nations of South America which have been invited to the conference, the Oriental Leagues of Red Cross Societies are expected to send delegates, and each Society has been invited to bring representatives of the public health organisations of its Government. An announcement made recently indicates that the International Red Cross Committee in Geneva, the League of Nations, the Rockefeller Foundation, the International Council of Nurses, and many other organisations are likely to participate.

Brooklyn Medical Society to Admit Laymen.

The King's County Medical Society of Brooklyn, a part of greater New York, has decided to break a precedent by allowing laymen to become associate members. They will be permitted to attend and take part in all the regular meetings and discussions of the organisation, but will have no voice in the administration. The parent medical society of the State of New York must, however, give its approval before the change becomes effective.

Women's Industrial Conference at Washington.

At the Women's Industrial Conference at Washington, which opened on Jan. 19th, Dr. Alice Hamilton, of the Harvard Medical School, speaking on industrial hygiene, declared that the United States Public Health Service was starved; it lacked a sufficient budget to accomplish essential experimental and research work. She contended that there were new factors in industry which were extremely dangerous to the health of the workers, and that tests should be made continually to determine their effects. The Public Health Service should do this work, and the service ought to be enlarged so that it could undertake the task successfully.

Saratoga Spa.

A scheme has been formulated for developing the New York State mineral spring reservation at Saratoga Springs into a great public watering-place, equipped after the fashion of the famous spas of Europe. The suggested expansion, which, it is said, will give the public the full benefit of New York State's valuable mineral water resources, is estimated at $6,000,000. For several years the money available for the development of the Saratoga reservation has barely sufficed to provide bathing accommodation for the people who visited the springs, and lack of funds has prevented the establishment of a regular water cure. The popularity of the treatment provided has, however, been steadily increasing.

Public Health Services.

NURSING AT THE SHIRLEY WARREN INFIRMARY.

A REPORT by the medical superintendent, Dr. E. L. White, reveals the unsatisfactory conditions under which nurses have been working at the Shirley Warren Infirmary, Southampton. During the last three and a half years eight nurses have contracted pulmonary tuberculosis and four of these have died, and the number warded in the sick-room has risen from 21 in the last six months of 1922 to 54 in the corresponding half of 1925. The illnesses, it appears, are more serious and last longer than formerly, and there has been at the same time a steadily increasing amount of disability not needing sick-room treatment. In Dr. White's opinion the sickness amongst the staff has been directly due to their hours of duty among the very heavy cases in the overcrowded wards. At this infirmary the total nursing staff (excluding the matron and her assistant) is 64, and the number of patients is 495. The nurse-patient ratio during the day is 1–10, and at night it is 1–34. The sister-patient ratio is 1–83 in the day and 1–250 at night. Junior probationers work 60 hours a week, staff nurses 62, and night nurses 65. The sisters have theoretically a 48-hour week: but in practice all these figures are a too low estimate, because neither nurses nor sisters can leave their wards at the appointed times on account of the high pressure of work, and meals are taken hurriedly out of proper hours.

No one can defend these conditions of duty, while Dr. White has pointed out that long hours do not form the only introduction to ill-health among the nursing staff. He says:—

"The obligations laid upon the guardians by the General Nursing Council, as the determining authority for State registration of nurses, increase the strain thrown upon the probationers, who are constantly being prepared in classes and on the wards for the preliminary and final examinations of the Council. These examinations are held every three months and I am obliged to keep the nurses studying continuously for the examinations, because it is in the interest of the whole staff that as many out of each batch presenting themselves should pass the examiners; otherwise the number for preparation increases, the wards are depleted more and more as the candidates are drawn from them for their lectures or demonstrations, and the number of probationers who can be pushed on towards completion of their training diminishes, therefore preventing the senior posts rendered vacant by consecutive resignations of the certificated staff nurses being filled by competent probationers well abreast of their studies. Although I myself am on the Board of Examiners of the General Nursing Council, I do feel that the continual worry and anxiety caused to girls in the early months of their training, through contemplation of the enormous quantity of theoretical knowledge to be acquired before they can acquit themselves with credit at the examinations, is a determining and detrimental factor in our present difficulties. It is frequently happening that nurses leave, or very seriously think of doing so, because of this quite unnecessary spectre looming ahead of their careers; not only so, but I am of opinion that the more conscientious and hard-reading girl is rendered less capable physically by reason of the high pressure at which she must take her so-called off-duty time—too largely eaten into by stewing in class-room or bedroom over problems laid carefully by thoughtless cranks in the path of women totally unable, from a variety of causes, to deal even partially and superficially with them."

That the physical type of would-be probationers is not so satisfactory as it used to be is an unfortunate addition to the circumstances which reinforces Dr. White's recommendation of an increase of 11 in the staff. The guardians have, in fact, arranged for their appointment, and have resolved that suitable accommodation should be provided for them. But Dr. White's report raises important issues which must not be forgotten because the arrangements at Shirley Warren are likely to improve. It is deplorable that they should ever have existed, and the story is a sufficient reply to those who consider that a waning public spirit in the young is responsible for the decreased entry to the nursing profession. There is a growing demand for healthy conditions of life, and it is essential that there should never be any hint that nurses are exploited.

INFECTIOUS DISEASE IN ENGLAND AND WALES DURING THE WEEK ENDED JAN. 30TH, 1926.

Notifications.—The following cases of infectious disease were notified during the week:—Small-pox, 365 (last week 362); scarlet fever, 2019 (last week 1818); diphtheria, 1210 (last week 1005); enteric fever, 32; pneumonia, 1351; puerperal fever, 74; cerebro-spinal fever, 8; acute poliomyelitis, 7; encephalitis lethargica, 55; dysentery, 4; ophthalmia neonatorum, 108. There were no cases of cholera, plague, or typhus notified during the week.

Of the 365 cases of small-pox, 42 (last week 26) were reported from the county of Derby, 39 of them from Derby C.B.; 182 (last week 175) from the county of Durham, 28 being from Gateshead C.B., 4 from South Shields C.B., and 1 from Sunderland C.B., the remainder being from widely scattered urban and rural districts and including 46 (last week 44) from Blaydon, 11 from Tanfield, 11 from Whickham, 26 from Chester-le-Street R.D., 14 from Easington R.D., and 13 from Sunderland R.D.; 51 (last week, 53) from the county of Northumberland, including 2 (last week 6) from Newcastle-on-Tyne, 12 from Ashington, and 28 from Morpeth R.D.; 13 (last week 8) from the county of Nottingham, including 10 from Sutton-in-Ashfield; 9 (last week 6) from the East Riding of Yorkshire, of which 8 were from Kingston-upon-Hull; and 68 (last week 92) from the West Riding, of which 60 (last week 79) occurred in Rawmarsh. No case was reported this week from the counties of Lincoln or Lancaster.

Deaths.—In the aggregate of great towns, including London, there were 5 deaths from enteric fever, none from small-pox, 102 (60) from measles, 12 (1) from scarlet fever, 52 (4) from whooping-cough, 35 (9) from diphtheria, 52 (11) from diarrhœa and enteritis under 2 years of age, and 100 (14) from influenza. The figures in parentheses are those for London itself. The mortality from influenza is again increasing, the figures for the last three weeks, working backwards, being, 100, 87, and 81.

Correspondence.

"Audi alteram partem."

CORONARY EMBOLISM.

To the Editor of THE LANCET.

SIR,—As attention has recently been drawn in THE LANCET by Dr. Charles H. Miller to the occurrence of embolism of the coronary arteries and by others to cases of coronary thrombosis it may be of interest to mention the following fatal case of coronary embolism.

A young coal-miner in apparently normal health went to his work as usual. Soon afterwards he was found lying dead in the pit without any sign of external injury. In order to ascertain the cause of the man's death the surgeon to the colliery performed an autopsy at which I was present at the request of the colliery owners. At first we failed to find any obvious explanation of the man's sudden death, but a closer scrutiny of the heart and aorta revealed the presence of the base of a single small vegetation, about the size of a pin's head, situated on the wall of the aorta close to the orifice of one of the coronary arteries. On opening up this coronary artery it was found to be plugged by a fresh embolus. This embolus had evidently become detached from the wall of the aorta and had been caught by the stream of blood entering the coronary artery and carried along until it was arrested at the point at which it was found. The sudden occlusion of this coronary artery and the consequent ischæmia of the heart wall supplied by it had evidently caused the sudden cardiac failure.

Prof. W. H. Welch states that the coronary artery is the rarest situation in which an embolus occurs. As a rule, emboli coming from the heart are swept past the opening of the coronary artery to be lodged elsewhere, so that in this case it was simply the position of the vegetation so near the origin of the coronary artery which determined the fatal course of the embolus.—I am, Sir, yours faithfully,

Manchester, Feb. 8th, 1926. GEORGE R. MURRAY.

BONE-SETTING AND OSTEOPATHY.

To the Editor of THE LANCET.

SIR,—The enclosed letter was sent to the *Times*, but has not appeared. It has received the approval of certain of my colleagues and you may think that its publication would be useful in view of the public importance of the situation set out.

I am, Sir, yours faithfully,
A. S. BLUNDELL BANKART.

Harley-street, W., Feb. 8th, 1926.

[ENCLOSURE.]

To the Editor of THE TIMES.

SIR,—Some of us have known from the first the real motive underlying the agitation about "the case of Dr. Axham." But, until Sir Herbert Barker's letter appeared in your issue of Jan. 23rd, the public may not have realised that this is a political agitation on the part of (American) osteopaths, chiropractors, and others, for legal status in this country. The "more fundamental issue" is now, however, made clear, and it is well that the public should be informed of some of the facts.

Orthopædic surgeons are rather sorry that Sir Herbert Barker has identified himself with this movement, because his own reputation has been made in the practice of straightforward manipulative surgery, which is quite a different thing from osteopathy and chiropractic.

For very many years in this country that part of manipulative surgery which is practised by unqualified persons has been called "bone-setting." It is based upon the fact that many of the minor injuries that occur among healthy people at work or at play are followed by some limitation of the normal movement of a joint, due to some thickening and contraction in a ligament or muscle, or to adhesion between surfaces which should glide over one another, or to some detached portion of a cartilage getting in the way. Many of these conditions are promptly relieved by manipulation which breaks down or removes the obstruction and restores normal movement to the joint.

This kind of manipulative surgery has long been known and practised by orthopædic surgeons. But it is only in comparatively recent years that orthopædic surgery has been recognised in this country, and admittedly it has been neglected by the medical profession generally. Hence it comes about that individuals requiring manipulative treatment often seek relief in vain from surgeons who are well known or even famous in other branches of surgery, but who do not practise manipulative surgery.

The unqualified bone-setter is on fairly safe ground so long as he confines his attentions to the effects of minor injuries in healthy adults. But when he essays to manipulate stiff joints in children and some others, which require surgical knowledge and training for their correct diagnosis, he is asking for trouble, and he almost invariably gets it.

Osteopathy and chiropractic are quite different from manipulative surgery or bone-setting. They are typical Yankee money-making stunts. The osteopaths have invented an imaginary "lesion" of the spine. It is a displacement of the little joints so subtle that it cannot be detected by the X rays nor by anyone who has had the training of a surgeon. This displacement is alleged to narrow the space between two adjacent vertebræ of the spine, so that the nerves which come out between them are pressed upon. Lastly, this pressure is said to produce far-reaching effects upon the distant parts of the body supplied by those nerves. The treatment consists in correcting these imaginary displacements by repeated manipulations of the spine.

Some 30,000 persons—a large proportion of them uneducated and even illiterate—are practising this "art" in America and Canada. A few have obtained a better education and have taken medical degrees. It is noteworthy that as soon as an osteopath becomes medically qualified he has to discard the first principle of osteopathy—namely, pressure on the nerves by the displaced vertebræ, because it happens to be an anatomical impossibility. But that does not matter; he has invented another theory, equally imaginary, but a little more difficult to disprove—namely, that the effects are produced, not by pressure, but by "congestion" in the neighbourhood of the displaced vertebræ. There is, as a matter of fact, no evidence to show that such congestion occurs, or that, if it did, it would produce any of the effects that are conveniently attributed to it.

Osteopaths have sought to support their claims by "research work." The results of this work will be found in the *Bulletin* of the A. T. Still Research Institute, Nos. 1–5, published by F. Bischoff, 27, East Munro-street, Chicago. The impression left on one's mind after reading these volumes is that a few individuals with little, if any, scientific training, have got together with some large text-books of physiology and unlimited opportunities for performing the crudest experiments on animals, and have produced a mass of irrelevant facts, incredible observations, and wholly unwarranted deductions, beside which the more commonplace quack advertisement pales. It is not possible to find in them a single observation that any educated person would accept as of the slightest scientific value, and it is impossible to conceive what purpose this literature serves other than as propaganda to bolster up a preconceived and evidently false doctrine.

It should, however, be said that, just as a quack medicine sometimes contains a useful drug, so the manipulations of the osteopath sometimes do good. For, among their cases osteopaths number some of genuinely strained backs in which movements are restricted by adhesions about the joints or in the muscles, just as in other regions, and these can certainly be relieved by manipulations. But this is straightforward manipulative surgery or bone-setting, and not osteopathy. Moreover, a large proportion of these patients are known to be highly neurotic, and the manipulations of the osteopath for the time being produce a profound mental impression on them.

The chiropractor differs little from the osteopath, except that he does not extend his activities beyond manipulation of the spine, while in many cases at least the osteopath also does bone-setting.

Orthopædic surgeons appreciate much of the work of the genuine "bone-setter," and the public should not be misled into thinking that the essentially American osteopaths and chiropractors are of the same order.

I am, etc.,
(Signed) A. S. BLUNDELL BANKART.

London, W., Jan. 26th, 1926.

THYROID GLAND AND CALCIUM THERAPY.

To the Editor of THE LANCET.

SIR,—Dr. H. W. Barber in his letter in your last issue invites opinions as to the value of calcium salts in the treatment of chilblains, and states that most of the patients who come to him have already taken calcium lactate over a long period without

striking benefit. My own experience is that calcium salts are effectual in a large number of cases, but that there is a fairly extensive residuum of patients in whom they are valueless. The use of calcium as a possible remedy for chilblains is now so widely known throughout the profession that it is given in the majority of cases at the first interview between the patient and the doctor, and in many cases it acts like a charm. I would suggest that the patients in whom Dr. Barber finds it useless belong to the residuum who derive no benefit from calcium.

I agree with Dr. Barber in his conclusions as to the lack of value of parathyroid in dermatological practice. It is the fashion at the moment to ascribe to a disordered endocrine system the production of any disease whose causation is unknown, and this tendency is apt to blind us to more tangible possibilities.

I have often wondered whether the dietetic factor enters into the ætiology of chilblains to a greater extent than is recognised at present. During the latter part of the war chilblains appeared to be more prevalent than now, and I have known patients who found a remarkable improvement in their condition when they were able to discard the margarine of those lean years and resume butter as a regular article of diet. Could we but follow our patients in the daily routine of their lives we should be surprised, I believe, at their startling ignorance of the elementary laws of health and not least in the matter of what constitutes an adequate diet.

I am, Sir, yours faithfully,

JOHN ALEXANDER DRAKE.

Harley-street, W., Feb. 8th, 1926.

To the Editor of THE LANCET.

SIR,—The interesting and suggestive letter in your last issue from Dr. Barber touches on so many points of importance that I venture to ask you once more for the courtesy of your columns.

Dr. Barber lays stress upon the type of individual who develops chilblains. He points out that the sufferers from *pernio* often show other signs of circulatory sluggishness, especially noticeable in their fat and "œdematous-looking" legs—unsightly members characterised by *keratosis pilaris*. My therapeutic experience in this type of patient leads me into general agreement with Dr. Barber's conclusions—namely, that they do not derive benefit from either parathyroid or calcium administration. I have regarded the sufferers in this class as owing their vascular torpor and obese tendency to an underlying pituitary deficiency. Their treatment on empirical lines with thyroid and pituitary substance has, in some instances, been followed by marked improvement, both subjectively and objectively.

Dr. Barber concludes his letter by a suggestion that the basic abnormality present in these patients may possibly be intestinal auto-intoxication: but he does not think that this is the only factor. It is an interesting fact that these cases occur nearly exclusively in girls during adolescence, at a time when considerable demands are made upon the triad—ovary, thyroid, pituitary. It is quite conceivable that the presence of toxins in the blood, in addition to the strain entailed by growth, may be sufficient to produce a very considerable disturbance in the endocrine hierarchy. Moreover, in more than one case of this kind which has come under my notice there have been very decided indications of definite pituitary lesions in other members of the family, which suggested that the familial stability of this gland may not be above suspicion. In patients who belong to other types it is worth while, in my judgment, to administer parathyroid and calcium, until it is obvious that these remedies are failing to improve the lesions.

Dr. Grove, in his letter, suggests that the major premise of my letter is incorrect, "namely, that chilblains are associated with calcium deficiency." In support of this he informs us that, from the examination of two cases "we have expressly stated that the cases of chilblains had normal blood calcium." He admits that "chilblains are very deceptive things to treat." I would like to go further and suggest to him that they are also very deceptive "things" upon which to dogmatise, especially where such a factor as calcium metabolism is concerned. Two cases seem a small allowance upon which to base a generalisation. Again, Dr. Grove writes: "I do not know who originally stated that chilblains had calcium deficiency." I regret that I am unable to inform him on this point, but he may be glad to be reminded that so long ago as 1896 Sir Almroth Wright showed that chloride of calcium notably increased the coagulability of the blood, and that this was in all probability the commencement from which calcium therapy in chilblains, erythema, and urticaria arose. It would be very instructive if the blood in a large number of patients suffering from chilblains could be examined under differing circumstances, and under various climatic conditions, and the calcium content determined.

Finally, I am glad to know that Dr. Grove finds injections of sodium cacodylate so certain a cure. No doubt the arsenic element assists the general nutrition of the skin.

I am, Sir, yours faithfully,

IVO GEIKIE COBB.

Queen Anne-street, W., Feb. 8th, 1926.

THE TREATMENT OF TINNITUS AURIUM.

To the Editor of THE LANCET.

SIR,—I have been much interested in reading Mr. Mollison's article on this subject in your issue of Jan. 16th.

Briefly the classical method of treatment so well expounded there by Mr. Mollison falls under two heads. First in cases where there are objective signs it consists mainly in inflation of the Eustachian tubes with or without injection of vapours and the use of the bougie, and in cases without objective signs, whatever the cause of the deafness, and it is often quite unknown, treatment of the tinnitus runs on similar lines: "drugs and general advice with encouragement." I agree with Mr. Mollison that when carried out on these lines "the treatment of tinnitus is unfortunately often disappointing." We are not, however, compelled to confine ourselves to these classical methods. For instance, for some time I have been using a new method of treatment which has given me much better results than the classical methods of treatment.

In your issue of May 9th, 1925, I published a record of 100 patients with chronic progressive deafness. Sixty-eight per cent. of these patients, after all other methods had failed, were alleviated by treatment with the Zund-Burguet electrophonoide. Of these 100 patients 36 suffered from tinnitus and 26 of them—i.e., 72 per cent.—after the treatment found that the tinnitus had disappeared; that is to say, although the deafness had only been alleviated the tinnitus had been cured. At the present time I have two patients, one a girl aged 26 who has suffered from otosclerosis since the age of 10. She had tried every form of treatment for her deafness and tinnitus, and her parents, having been told that she would inevitably go stone deaf, have also had her taught lip-reading. Before treatment she could hear from 4 to 5 ft. on either side, after treatment she can now hear at a distance of 20 ft. on the left side and 25 ft. on the right side, and the tinnitus has disappeared. The other is an old lady of 81; she is not deaf but complains of terrible noises in the ears, of which the most annoying is a "railway whistle"; after a few treatments the railway whistle noise has disappeared, and I hope that the others will disappear also.

Apropos of the treatment with the electrophonoide I should like to say a word anent the annotation that appeared in your issue of Dec. 16th, 1925, on Massage in the Treatment of Middle-ear Deafness, as given in Vienna. I have been acquainted with this treatment for some time, and I cannot see that it compares in any way with the treatment by the electrophonoide; besides, it applies only to chronic otitis media, whereas the treatment by the electrophonoide does good also

in many otherwise intractable cases of nerve deafness and otosclerosis, as I explained in my paper of May 9th. I am treating a patient at present aged 54, who has suffered from chronic otitis media for 25 years and has been given up as hopeless after having tried every kind of treatment at home and abroad including the massage treatment aforesaid. When he came to me he could hear at a distance of 3 ft. on the left side and 1 ft. on the right. After 12 treatments he can hear at a distance of 15 ft. on the left side and 5 ft. on the right; he says also that there is no comparison between the pleasantness of the two methods of treatment. I am, Sir, yours faithfully,

GEORGE C. CATHCART.

Upper Wimpole-street, W., Feb. 8th, 1926.

MANIPULATIVE SURGERY.

To the Editor of THE LANCET.

SIR,—The article by the Registrar of the General Medical Council is very interesting to those who may not have studied the Medical Acts, but I am afraid it only intensifies the feeling which exists in the minds of many medical as well as laymen that, in the case of Dr. Axham, the Council was acting outside the legal powers conferred by those Acts. From the beginning to the end of the Act it is clear it was intended to protect the public from the action of a qualified medical man passing off an unqualified one as if he were a qualified substitute. In the case of Dr. Axham he was not a principal, and his work as an anæsthetist was distinct from the manipulative part which was performed by a well-known bone-setter, and there was no attempt to mislead the patient into believing Mr. Barker (as he then was) to be a qualified medical man.

From the first paragraph of the Act it is obvious that the continued existence of unqualified practitioners was contemplated. At the time when Sir Herbert Barker, following on the late Mr. Hutton, began the practice of his work, known as "bone-setting," but now dignified with the title of "manipulative surgery," the correct and in fact only treatment taught students for dealing with sprains was an application of plaster-of-Paris bandages, and in my own early days in the Army Medical Service each invaliding day found us discharging men from the army with stiff joints as the result of the then orthodox treatment by plaster-of-Paris cases. As the profession certainly does owe its present and more rational method of treating sprains to the efforts of the old-time bone-setter, would it not be more dignified if we admitted our indebtedness? We might, in the future, advise the public as widely as it can possibly be done (by those who do not themselves practise this form of treatment so as to avoid the risks which would attend such advertising by those who do) that there is no longer any necessity to run risks of unqualified practitioners. New entrants into the field of bone-setting must go through a long training and period of experience (not by any means devoid of risk to the patients) before they arrive at real skill.

I am, Sir, yours faithfully,

BRUCE BRUCE-PORTER.

Grosvenor-street, W., Feb. 8th, 1926.

CHARING CROSS HOSPITAL INSTITUTE OF PATHOLOGY.

To the Editor of THE LANCET.

SIR,—I am still of opinion, in spite of the rather irrelevant considerations which have weighed with Dr. Piney, that it is undesirable for institutions which are subsidised for other purposes to compete with ordinary businesses in this way. May we expect, on the same principle, the establishment of laundry services at cut rates by the Maida Vale and Charing Cross Hospitals? The benefit to the public health, in their respective districts, would, in my opinion, be greater than will accrue from the pathological service offered. I am, Sir, yours faithfully,

Queen-square, W.C., Feb. 6th, 1926. J. A. MURRAY.

CHOLERA IN RUSSIA: A SATISFACTORY POSITION.

To the Editor of THE LANCET.

SIR,—We are informed that there has been a statement in one of the British newspapers to the effect that cases of Asiatic cholera were registered in the U.S.S.R. in 1926. According to the official information received by me to-day from the Commissariat of Public Health, the latest two cholera cases were registered in Soviet Russia in July, 1925. Not one case has been registered in the Union in 1926.

I am, Sir, yours faithfully,

V. N. POLOVTSEV,
Representative of the Commissariat of Public Health and the Russian Red Cross, U.S.S.R.

Southampton-row, W.C., Feb. 5th, 1926.

HYSTERICAL DISORDERS IN CHILDREN.

To the Editor of THE LANCET.

SIR,—Dr. Wyllie, in his paper on Hysteria in Children, refers in his remarks on sympathetic vaso-motor instability to the absence of bleeding on pin-prick which may be associated with the coldness and cyanosis of a hysterically palsied limb. It happens often, but not always, that we may thread a sharp pin, without the loss of a drop of blood, through the skin of a part which as a result of hysteria is anæsthetic or palsied or both. It also often happens that the anæsthetic skin of organic disease—e.g., tabes dorsalis—may similarly be bloodlessly transfixed, the risk of anæsthesia by suggestion being guarded against. Bloodless transfixion of the skin has come to be associated with hysterical conditions, but it has seemed to me that when it can be performed in an area of skin which is analgesic it depends on the loss of cutaneous sensibility rather than on any special condition which is giving rise to the analgesia.

I am, Sir, yours faithfully.

Harley-street, W., Feb. 8th, 1926. HILDRED CARLILL.

INTRA-URETHRAL NEGATIVE PRESSURE DURING COITUS.

To the Editor of THE LANCET.

SIR,—In a footnote to a letter of mine with this title which appeared in your issue of Jan. 23rd you state that "we need more material on which to base opinions as to the value of prophylaxis."

A mass of most convincing evidence as to the value of prophylaxis was laid before the Trevethin Committee by medical witnesses who had practical first-hand experience of its use on a large scale, while criticism of the value of prophylaxis was based on theory and confined to medical witnesses who honestly stated that they had no personal experience to record. Twenty-five authoritative medical witnesses endorsed the value of prophylaxis, based on practical experience in England, Scotland, Egypt, Mesopotamia, Russia, and in the navy. You, Sir, are doubtless aware that the Conference of the United States Public Health Services and State Venereal Disease Control Officers, held at Hot Springs, Arkansas, in December, 1924, passed a resolution to the effect that "Measures of immediate disinfection to those exposed to these diseases have been proved to be scientific and practicable."

I venture, therefore, to think that it is not so much "more material on which to base opinions" that is required as a wider publicity of the material that we already possess.

I am, Sir, yours faithfully,

H. WANSEY BAYLY.

Harley-street, W., Feb. 4th, 1926.

WREXHAM HOSPITAL.—A new hospital, of which the cost, including site and furnishings, amounts to £100,000, is now approaching completion at Wrexham. Several thousand pounds have been subscribed by miners and work-people in weekly payments.

Obituary.

WILLIAM BATESON, F.R.S., D.Sc.,

DIRECTOR, JOHN INNES HORTICULTURAL INSTITUTION.

WE regret to announce the death on Monday last at his residence, Merton Park, Surrey, of Prof. William Bateson, the biologist who, by his close and independent researches into the subject of heredity, established his claim as a representative scientific leader, opening up fields of research and speculation whose harvest is of the finest promise to medicine.

William Bateson was the son of the Rev. Dr. W. H. Bateson, who was for 20 years the Master of St. John's College, Cambridge. He was born at Whitby in 1861, was educated at Rugby and his father's college, graduated in the first class in the Natural Science Tripos in 1882, and was duly elected a Fellow of St. John's. At that time Francis Maitland Balfour, who had just published an illuminating treatise on embryology, was appointed to a special professorship of animal morphology founded at Cambridge, and under his influence Bateson's first work had a strictly embryological outlook. But it soon took a wider shape as he became absorbed in the study of the problems of evolution. The paths into which a mass of original and intensive study led him were at first sight revolutionary—revolutionary, that is, in the eyes of those who thought that the work of Charles Darwin was finite. If that great man had been alive he would have been the first to dissociate himself from any idea that conclusions which he had arrived at were to be regarded as an unchangeable gospel, and although Bateson's studies of the phenomena of variation were regarded askance by pious Darwinians, it became clear, when his first text-book was published, that he was enunciating doctrines of fundamental importance in bringing forward arguments to show that nature was not condemned to progress only through the manifestation of imperceptible changes and acting through infinite periods of time. Bateson's brilliant "Materials for the Study of Variation" was published in 1894, and his work, with the theories which underlay it, received singular confirmation a few years later, when Mendel's three remarkable essays on heredity came to light.

So far had Bateson proceeded on similar lines that the doctrines of Mendelism were immediately clear to him, and when in 1902 he published his book, entitled "Mendel's Principles of Heredity," he was proving, though he never took up an egotistic position, that his own work was elevating the study of heredity into an organised branch of physiological science. And thus he steadily pursued his objects, and when in 1908 he was appointed professor of biology in the University of Cambridge he made the beautiful garden round his house in Granchester a centre of intensive work for the establishment of principles which received largely the label of Mendelism though much might well have been categorised under his own name. At Granchester a group of enthusiastic students under Bateson's direction, carried on researches into the phenomena of heredity of a valuable and practical description, while it was an amusing experience for those who went to consult Bateson in his open-air laboratory to inspect chicken-runs whose denizens were illustrating phases of nurture or motion, flowers displaying artificially produced qualities of shape or colour, and fruit bushes carefully netted and handed over to the depredations of caterpillars. A large quantity of these experiments were reported upon to an evolution committee of the Royal Society by Bateson and his assistant, Miss E. R. Saunders, and a memoir of exceptional interest was shortly afterwards published in which the hereditary variations of animals and plants, continuous and discontinuous, were recorded, as well as the specific effect that in-breeding might have in modifying the power of transmitting parental characters.

His tenure of the chair at Cambridge was brief, for in 1909 he resigned his professorship on appointment as Director of the John Innes Horticultural Institution, and Merton Park now became the scene of his continuous researches. He himself recorded in the Huxley Memorial Lecture, delivered at Birmingham, the exact position in which Darwin, Huxley, Mendel, and incidentally himself, stood in the developments of the fundamental theories of evolution. Though ever an enthusiastic advocate of Darwin's views, he showed that Huxley had always retained an article of faith excluded from the strict Darwinian creed, for to Huxley it had appeared that the importance of specific and discontinuous variation—labelled by this time the mutation theory—was of greater importance than Darwin's researches had prepared him to admit. Mendel's work pointed the way, said Bateson, to the essential fact that the forms and qualities of living things can in numberless examples be proved to depend on the presence of definite elements or factors distributed among the germ cells according to predicable systems, and the illustrations of this theory by a variety of phenomena in plants, animals, and man was the immediate work which lay under Bateson's hand. He dealt with all aspects of the subject in his work "Problems of Genetics," published in 1913, and in many communications on biological subjects; and while holding the general conclusion that with the progress of the later methods of analysis biology was passing into a new phase, he uttered warnings against the too ready acceptance of any violent generalisations.

The sum of well-deserved honours which accrued to Bateson was a large one. He was twice a medallist of the Royal Society; he was a corresponding member of scientific academies and societies all over the world; he was for two years Fullerian Professor of Physiology at the Royal Institution; he received many honorary degrees; and in 1914 he was President of the British Association at its session in Melbourne, when he took the occasion to review the discoveries made by the analytical methods of biological study in a masterly manner. The amount of personal work which had to fall under reference in telling the story [1] shows in itself the debt which science owes to Bateson.

Prof. Bateson married in 1896 Beatrice, daughter of the late Arthur Durham, senior surgeon to Guy's Hospital. She and one son survive him, two elder sons having died, one after injuries received in the war.

The Services.

ROYAL NAVAL MEDICAL SERVICE.

THE following appointments have been notified: Surg.-Comdrs. R. H. McGiffin to the *President*, addl., for duty in Medical Department of the Admiralty, and H. R. B. Hull to the *Queen Elizabeth*, addl., for specialist duties in the Mediterranean Fleet; Surg. Lt.-Comdrs. H. Wilks to the *Pembroke* for R.N. Barracks, temp., and F. H. Vey to the *Lucia*; Surg.-Lts. G. G. Newman to the *Ajax*, H. W. Strong to the *Iroquois*, W. McCoach to the *Pembroke* for R.M. Infirmary, Eastney, T. Madill to the *Bee*, D. Glass to the *Keppel*, and W. P. E. McIntyre to the *Wallflower*.

Surg.-Comdr. G. T. Verry is placed on the Retd. List at his own request.

ROYAL NAVAL VOLUNTEER RESERVE.

Surg.-Capt. W. E. Harker is placed on Retd. List.

ROYAL ARMY MEDICAL CORPS.

Maj. T. W. O. Sexton retires on retd. pay.

ARMY DENTAL CORPS.

Capt. E. R. Saul retires, receiving a gratuity.

Temp. Capts. T. Pearson and J. L. Craig, from Genl. List, to be Capts.

TERRITORIAL ARMY.

Capt. N. St. J. G. D. Buxton (Maj., Res. of Off.) resigns his commn. in the T.A.

G. Tudhope (late Surg. Sub-Lt., R.N.V.R.) to be Lt.

J. Kerr (late Officer Cadet, St. Andrew's University Contgt., Sen. Div., O.T.C.) to be Lt.

TERRITORIAL DECORATION.

The Territorial Decoration has been conferred upon Lt.-Col. W. Archibald and Maj. O. Teichman.

[1] THE LANCET, August 15th, 1914.

ROYAL AIR FORCE.

C. J. S. O'Malley is granted a short service commission as a Flying Officer, for three years on the Active List.

N. I. Smith (Capt., R.A., T.A.) is granted a short service commission as a Flying Officer for three years on the Active List, and is seconded for employment at King's Cross Hospital, Dundee.

Flight Lt. T. L. P. Harries is transferred to the Reserve, Class D.2.

INDIAN MEDICAL SERVICE.

Lt. M. Taylor to be Capt.

The King has approved the relinquishment of their temporary commissions by Capt. Satis Chandra Sen (to retain the rank of Capt.) and Lt. Arukkattur Rangaswamy Srinivasan.

Medical News.

ROYAL COLLEGES OF PHYSICIANS OF LONDON AND SURGEONS OF ENGLAND.—At the Final Examination of the Conjoint Board, held from Jan. 5th to 27th, the following candidates were approved in the subjects indicated, but are not eligible for diplomas:—

Medicine.—M. O. Abdeen, Birmingham; J. R. Armstrong, St. Bart.'s; P. G. Bentliff, Middlesex; T. W. Best, Univ. Coll.; B. Blaxill, St. Thomas's; J. L. Blonstein, Univ. Coll.; Kathleen M. Bowman-Manifold, Royal Free; E. Carew-Shaw, St. George's; Elizabeth J. Carpenter and Rose A. Carter, Royal Free; J. R. B. Chatterton, Univ. Coll.; J. G. Cox, St. Bart.'s; Lucy M. Cranage, Royal Free; K. J. Cursetji and W. W. Darley, St. Bart.'s; L. Dass, Middlesex; P. C. Datta, Calcutta; Mirabel G. Davis, King's Coll.; C. J. Dobbin, Guy's; A. F. Downie, Birmingham; A. G. Eddison, Univ. Coll.; E. S. Evans, St. Thomas's; Alice B. Field, King's Coll.; J. N. C. Ford, St. Bart.'s; R. Gallimore, London; Margaret E. J. Gashion, Charing Cross; R. S. Glennie, St. Thomas's; Marjorie Goldrich, Charing Cross; L. Golomb, Middlesex; A. F. W. Hall, Guy's; R. G. Hall, Charing Cross; Margaret A. Harrison, Royal Free; V. V. H. Ho-Akai, Guy's; Marion Hook, Boston; K. M. N. Isaacs, London; J. H. F. Jayasuriya, Middlesex; Emily E. Johnson, Leeds; J. P. Jones, St. Mary's; Rachel I. Kessel and Olive C. Knight, Charing Cross; C. J. Laviers, St. Bart.'s; L. Lipschitz, Berlin and Middlesex; W. H. S. McGregor, St. Bart.'s; R. M. Maher, Liverpool; Marion A. N. Marshall, St. Mary's; Florence I. J. Masterman, Royal Free; A. N. Mathias, St. Mary's; J. H. Miller, Birmingham; E. R. W. Monsglaser, Middlesex; Norah M. A. Niall, Charing Cross; Evelyn M. Pakeman, Royal Free; Florence M. Parsons, Charing Cross; Dorothy F. Pratt, Royal Free; Margaret M. Price, St. Mary's; Lesley M. C. Probyn, Charing Cross; W. D. B. Read, Guy's; Sibyl D. Rodgers, King's Coll.; Margaret M. Russell, King's Coll.; J. W. Schollum, Guy's; Helen D. S. C. Scott and Mary A. Silcock, Charing Cross; Evelyn C. N. Strong, Birmingham; Ma May Su, Leeds; B. C. Tate, Birmingham; O. R. Tisdall, St. Bart.'s; E. F. C. Wadge, King's Coll.; I. Waynik, Charing Cross; T. C. S. Webb, Univ. Coll.; and Dahlia Whitbourne, Royal Free.

Surgery.—F. Appleton, Manchester; A. K. Basilios, Birmingham; O. H. Bellerby, St. Bart.'s; C. R. Birnie, King's Coll.; J. L. Blonstein, Univ. Coll.; Mabel C. Booysen, Charing Cross; J. D. Borham, Middlesex; J. W. Bottoms, London; G. J. O. Bridgeman, St. George's; A. H. Brockbank, Guy's; A. Burlingham, Univ. Coll.; R. H. Burns, London; C. H. Burridge, St. Thomas's; R. D. W. Butler, Birmingham; Enid Clarke, Royal Free; R. G. Cooke, Liverpool; R. A. P. Corkery, St. Bart.'s; R. F. Corlett, Liverpool; D. H. Couch, Guy's; G. H. Crisp, St. Bart.'s; C. R. Croft, St. Thomas's; T. L. Davies, London; D. A. Dewhirst, St. Bart.'s; Jean M. Dollar, Royal Free; A. G. Eddison, Univ. Coll.; G. Edwards, St. George's; G. C. Edwards, St. Thomas's; R. G. Flower and Elsie G. M. Ford, Leeds; E. J. Greenwood, Guy's; K. A. Hamilton, St. Bart.'s; T. J. Hargest, Cardiff; H. J. Heathcote and T. H. Hobbes, St. Bart.'s; E. G. Howe, St. Thomas's; J. H. Humphris, St. Bart.'s; D. H. Isaac, Cardiff; P. B. Jackson, Middlesex; R. Jarman, Guy's; B. C. Jennings, Birmingham; N. M. Jerram, St. Thomas's; J. P. Jones, St. Mary's; J. Joseph, Middlesex; R. Kahn, London; Eileen M. King, Univ. Coll.; A. E. Kingston, Middlesex; F. E. Kingston, London; W. Leslie and D. Lurie, Guy's; A. L. S. McClosky, St. Mary's; Mary A. C. MacHugh, King's Coll.; S. M. Mallick, C. W. Marshall, and J. N. Martin, Guy's; W. N. Mascall, St. Thomas's; A. J. M. Melly, St. Bart.'s; D. P. Mitra, Charing Cross; J. W. Monro and A. W. J. Morgan, London; J. Morris, St. Thomas's; T. W. Morris, Liverpool; T. C. Mort, Cardiff; B. E. T. Mosse, St. Bart.'s; C. E. H. Moykopf, Guy's; M. Murad, B. L. S. Murtagh, A. V. Neale, and R. Nicklin, Birmingham; H. P. O'Keeffe, London; M. N. Oster, Westminster; Marion G. Palmer, Univ. Coll.; I. M. Preston, Manchester; M. E. D. Roberts, Birmingham; E. Robinson and E. H. Roche, Guy's; F. C. Roles, St. Bart.'s; Doris M. F. Russell, Royal Free; H. W. Sadlier, St. George's; W. E. Savage, Manchester; M. Sendak, St. Mary's; F. C. Simpson and H. Sissons, Manchester; H. M. Soar, Charing Cross; Dorothy E. Stewart, Royal Free; Ma May Su, Leeds; H. Syed and J. W. de W. G. Thornton, King's Coll.; H. B. Trumper, Birmingham; F. B. Turner, London; G. F. Vincent, St. Thomas's; S. D. H. D. Wallis, Guy's; T. H. Wehlburg, St. Bart.'s; and A. G. Welker, Westminster.

Midwifery.—Gertrude Alphonso, Royal Free; M. I. Ashmaw, St. Thomas's; R. Bandyopadhyay, Calcutta; M. L. Behl, London; O. H. Bellerby, St. Bart.'s; P. G. Bentliff, Middlesex; P. Berry and L. R. B. Birt, Guy's; N. Bissada, Manchester; A. D. Blackwell, Middlesex; B. Blaxill, St. Thomas's; W. Blood, London; E. J. C. Bockett, King's Coll.; Kathleen M. Bowman-Manifold, Royal Free; H. Bown, Sheffield; G. H. Brown, Liverpool; A. H. Bruce, Guy's; Catherine F. Cameron, Royal Free; P. J. L. Capon, St. Thomas's; Rose A. Carter, Royal Free; Constance M. Corbett, Westminster; R. A. P. Corkery, St. Bart.'s; R. F. Corlett, Liverpool; N. Cox, Manchester; C. R. Croft, St. Thomas's; P. C. Datta, Calcutta; T. L. Davies, London; Daphne W. Dear, King's Coll.; D. A. Dewhirst, St. Bart.'s; C. H. Dhala, London; Jean M. Dollar, Royal Free; J. Ellison, Leeds; M. M. El Mishad, Guy's; M. Escovar-Frias, London; S. H. Evans, Sheffield; J. C. Gent and B. W. Goldstone, St. Mary's; E. J. Greenwood, Guy's; Linnie A. Hamar, Charing Cross; Margaret A. Harrison, Royal Free; E. Heard, Manchester; G. R. N. Henry and C. W. Hope-Gill, St. Thomas's; Isabelle R. Humphreys-Owen, King's Coll.; T. C. Hunt and T. W. Hunt, St. Mary's; M. K. Hussein, St. Bart.'s; S. G. Irlam, London; Margaret N. Jackson, Charing Cross; R. Jarman, Guy's; D. M. Johnson, St. Bart.'s; J. D. F. Johnston, Univ. Coll.; E. D. Jones, St. Bart.'s; H. I. Jones, St. Mary's; W. B. R. Jones, St. Thomas's; R. Kahn, London; B. Kaplan, Guy's; Gladys Kay, Royal Free; J. C. T. Keddie, Manchester; Eileen M. King, Univ. Coll.; A. E. Kingston, Middlesex; G. T. Krajewski, Univ. Coll.; H. W. Lewis-Philipps and D. Lurie, Guy's; A. L. S. McClosky, St. Mary's; R. M. Maher, Liverpool; Beryl Mappin, St. Mary's; Florence I. J. Masterman, Royal Free; E. R. Matthews, St. Mary's; M. N. Menon, Guy's; Barbara H. Mitchell, Royal Free; H. W. Morck, Durham; E. W. Morgan, St. Bart.'s; J. Morris, St. Thomas's; B. G. S. Mudali, Madras; B. L. S. Murtagh and A. V. Neale, Birmingham; C. S. Netscher, St. Mary's; Evelyn M. Pakeman, Royal Free; Marion G. Palmer, Univ. Coll.; M. D. Patel, Guy's; A. J. Patil and D. Perkoff, London; H. A. Pim, St. Thomas's; Muriel F. Prout, Royal Free; E. J. Pye-Smith and W. D. B. Read, Guy's; W. H. G. Reed, King's Coll.; Violet M. H. Rendall, St. Mary's; L. A. Richardson, St. Thomas's; M. E. D. Roberts, Birmingham; M. Roberts, Liverpool; R. Roderick, St. Bart.'s; Doris Russell, Royal Free; N. A. Saif and A. A. Y. M. Salama, St. Thomas's; W. Samarasinghe, Middlesex; G. C. Shepherd, Charing Cross; D. P. Simpson, St. Bart.'s; J. W. Simpson, Manchester; B. D. Sindhwani, Durham; Peggie P. Slater, Westminster; I. Slofski, St. Mary's; H. M. Soar, Charing Cross; A. W. Spence, St. Bart.'s; W. H. B. Spoor, St. Thomas's; S. Le R. Switzer, London; B. C. Tate, Birmingham; R. H. Tootill, Manchester; E. M. Town-Jones, Leeds; H. B. Trumper, Birmingham; Winifred M. Turner, Royal Free; Aimee A. L. Vaillant, Liverpool; G. F. Vincent, St. Thomas's; E. F. C. Wadge, King's Coll.; Betty C. Waters, St. Mary's; D. F. Whitaker, Univ. Coll.; Dahlia Whitbourne, Royal Free; Rosa S. Wordsworth, Charing Cross; and R. E. Yule, St. Thomas's.

ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH, ROYAL COLLEGE OF SURGEONS OF EDINBURGH, AND ROYAL FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.—The following candidates have passed the Triple Qualification Examination:—

FINAL EXAMINATION.

John L. Dearberg, Netiamvettil Karumakara Menon, Marian E. Owen-Morris, James K. Steel, Charles K. Dowson, Isaac Chesser, Kim Seng Lum, James W. Wylie, William M'Kim, George C. Bergman, Marvel D. Beem, Leonard Barber, Eric D. T. Smith, Alexander Rankin, Robert H. M'Kinnon, Nicandro Valerio, John B. Panton, William T. Baker, Mikhail Younakim, John J. Gilchrist, Sittampalam Thiagarajah, David Dorairaju Nevins Selvadurai, Mela Ram Soni, Douglas B. Cruickshank, Charles J. G. Hunter, William E. Williams, and Asit Chandra Bagchi.

Medicine.—Gwendoline R. Andrews, Carapiet Aviet Basil, Surendra Nath Chatterjee, John L. Clark, Weliwattage Liveris Perera Dassanayake, Basil J. Hallion, Samuel A. Hunt, Frederick T. Shadforth, and Thomas A. P. Wynter.

Surgery.—William B. Anderson, Basil J. Hallion, David Isaacs, George M. Johnson, Joseph Margolyes, John P. T. Mills, Kenneth R. Scott, Vethanayagam DanielSeevaretnam, Joseph B. Stromier, Ellis Stungo, Colin H. Wickremesinghe.

Midwifery.—William B. Anderson, Gwendoline R. Andrews, Weliwattage Liveris Perera Dassanayake, Harry Ellison, Samuel A. Hunt, George M. Johnson, Tarabai Kalarkar, John Lees, Jemina M. M'Kendrick, William Robinson, William B. Russell, Arleigh W. Scott, Kenneth R. Scott, and Ellis Stungo.

Medical Jurisprudence.—Amolak Singh Arora, Alexander W. M. Battersby, Oswald D. Beetham, George V. Boyle, William J. Cudahy, Norman M. Eadie, Anna N. Edward, Armitage E. F. L. Forbes, James Gilchrist, William Graham, Bandulasena Gunawardena, John S. T. Isbister, Marcus G. Lucas, James M'Donald M'Kendrick, Ellis Stungo, Necodimus Wijeyesekera, and Malcolm M. Wright.

HOSPITAL SATURDAY FUND.—Awards amounting to £71,503 have just been made to 234 institutions, which is about £1000 more than in 1924. The largest total—nearly £24,000—was given to special hospitals; general hospitals received nearly £19,000, and convalescent homes £6885.

ROYAL INSTITUTION.—On Tuesday next, Feb. 16th, at 5.15 P.M., Prof. J. Barcroft begins a course of four lectures at the Royal Institution on the Egg.

CHELSEA CLINICAL SOCIETY.—A meeting of this society will be held at St. George's Hospital on Tuesday, Feb. 16th, at 8.30 P.M., when Prof. Swale Vincent, Dr. E. Bellingham-Smith, and Dr. T. B. Hyslop will take part in a discussion on the Endocrines.

MEDICAL SOCIETY FOR THE STUDY OF VENEREAL DISEASES.—A general meeting of this society will be held at 11, Chandos-street, London, W., on Feb. 26th, at 8.30 P.M., when Sir Thomas Horder and Dr. F. W. Price will discuss Syphilis of the Heart, dealing more especially with the early signs and symptoms.

Sir Arbuthnot Lane will deliver an address entitled Is Civilisation a Failure? at the inaugural meeting of the London Clinical Society, which will be held on Thursday, Feb. 18th, at 8.45 P.M., at the London Temperance Hospital, Hampstead-road, N.W. All medical men and women are cordially invited to be present.

MEDICO-LEGAL SOCIETY.—An ordinary meeting of this society will be held at 11, Chandos-street, Cavendish-square, W., on Tuesday, Feb. 16th, at 8.30 P.M., when a paper will be read by Dr. G. Halliday Sutherland, on Enlargement of the Prostate in Relation to Criminal Offences, which will be followed by a discussion. Members may introduce guests to the meeting on production of the member's private card.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.—A meeting of this society will be held at the Municipal Buildings, Glasgow, on Friday, Feb. 19th, at 2.30 P.M., when there will be a discussion on Heart Disease from the point of view of (*a*) public health administration (Dr. A. K. Chalmers), (*b*) the physician (Dr. G. A. Allan), (*c*) the school medical officer (Dr. E. T. Roberts), and (*d*) the factory surgeon (Dr. D. McKail). A paper on Experience at Bradford of the New Notification Clauses *re* Venereal Disease will be read by Dr. J. J. Buchan, and there will be a presentation by the Scottish branch of the portrait of Dr. Chalmers, president of the society, 1913–14. Members attending the meeting will be entertained at luncheon by the Lord Provost and the City Corporation of Glasgow at 1 P.M. Those intending to be present are asked to notify Dr. A. S. M. MacGregor, M.O.H., Sanitary Chambers, Glasgow, as soon as possible.

FELLOWSHIP OF MEDICINE AND POST-GRADUATE MEDICAL ASSOCIATION.—On Feb. 18th, at 5 P.M., a lecture on Artificial Pneumothorax as a Means of Treating Pulmonary Tuberculosis will be given by Dr. R. A. Young at 11, Chandos-street, London, W. This lecture will be open to all members of the medical profession.—On Feb. 17th, at 2 P.M., Mr. J. Swift Joly will hold a special clinical surgery demonstration at St. Peter's Hospital, at which all members of the Fellowship or holders of its general course tickets will be welcome.—From Feb. 15th onwards the Queen Mary's Hospital, Stratford, will hold a fortnight's course in general medicine and surgery; there will be demonstrations and lectures in the various departments every day from 10 A.M. till 5 P.M.—During the first fortnight in March the Royal Eye Hospital will hold a special series of clinical demonstrations every afternoon from Monday to Friday inclusive.—During the early part of March there will be a special course in bacteriology at the Westminster Hospital.—The Chelsea Hospital for Women will give a course in gynæcology in the last three weeks of March, with operations, lectures, and demonstrations, and during the last fortnight of the month at the Brompton Hospital there will be an all-day course in diseases of the chest.—From March 15th to 27th there will be a course in general medicine and surgery at the Hampstead General Hospital, to be held from 4.30 to 6 P.M. for the convenience of practitioners.—There will also be a course in tropical medicine, consisting of two sessions weekly, at the London School of Tropical Medicine, beginning on March 16th. Copies of all syllabuses of the general course programme and of the *Post-Graduate Medical Journal* may be had on application to the Secretary of the Fellowship at 1, Wimpole-street, London, W. 1.

The annual general meeting of the Association will be held, by permission of the Royal Society of Medicine, at 1, Wimpole-street, on Monday, Feb. 22nd, at 5.30 P.M. The business of the meeting will be to receive the reports of the honorary secretaries and treasurer, to elect members of the council, and also to elect the honorary officers nominated by the council at a meeting on June 28th last. These officers are as follows: President, Sir Arbuthnot Lane; Chairman of the Executive Committee, Sir Thomas Horder; Hon. Treasurer, Sir William Hale-White; Hon. Secretaries, Mr. Herbert J. Paterson and Dr. Arthur J. Whiting. By an alteration of one of the by-laws each member of the Fellowship will be entitled henceforth to receive a copy of the Journal of the Fellowship.

RIVERS MEMORIAL MEDAL.—Prof. C. G. Seligman, M.D., F.R.S., has been awarded the Rivers Memorial Medal for 1925 for anthropological work done in the field. This work was in connexion with New Guinea, Ceylon, and the Sudan.

LONDON (R.F.H.) SCHOOL OF MEDICINE FOR WOMEN.—At a special meeting of the council held on Feb. 4th Lady Barrett, M.D., was elected to the honorary office of Dean of the school.

BRADFORD HOSPITAL AND CONVALESCENT FUND.—Of the £21,490 raised last year by this fund, £12,238 was subscribed by workpeople. In the last 31 years the fund has raised £343,000.

MANCHESTER CHRISTIE HOSPITAL PRIZE LECTURE. Mule-Spinners' Cancer will be the subject of the lecture to be given by Dr. Archibald Leitch in the anatomy theatre of the University of Manchester at 4.30 P.M. on Friday, Feb. 19th.

ST. MARY'S HOSPITAL, PADDINGTON: SPORTSMEN'S COTS.—Last week the Mayor of Paddington unveiled a tablet over a cot provided by the local Sportsmen's Appeal Committee, which has now endowed four beds and two cots with the proceeds of concerts and boxing tournaments.

CITY SMOKE PROBLEM.—Dr. J. S. Owens will deliver a lecture on the City Smoke Problem and the Press at 5 P.M. on Tuesday, Feb. 16th, in the hall of the Institute of Journalists, Tudor-street, London, E.C. Those who wish to be present should inform Mr. L. Gaster, 32, Victoria-street, S.W. 1.

TREATMENT OF SURGICAL TUBERCULOSIS.—A course on this subject will be held at the Hôpital Maritime at Berck Plage, Pas de Calais, France, from March 29th to April 3rd inclusive. Lectures will be given in the mornings by Dr. E. Sorrel, and in the afternoons there will be clinical and laboratory work with practical experience in applying plasters and the like. Information may be had from Dr. Delahaye at the hospital.

KING'S COLLEGE HOSPITAL AS MATCH-SELLER.—Commander E. E. Moore, appeals secretary, has placed in the South London area 500 automatic match machines inscribed, "Always buy here; it helps King's College Hospital." The scheme is understood to have originated in Australia, where a large hospital is said to benefit to the extent of between £5000 and £6000 a year by the sale of matches from automatic machines.

LIVERPOOL DENTAL HOSPITAL.—At the annual meeting on Feb. 4th special attention was drawn to the Dental Aid Fund, from which grants are made towards the cost of artificial teeth, fillings, or other appliances supplied to necessitous patients. Last year patients contributed £525, and the subscription list amounted to just under £400. There was a loss of £543 on the year's working, bringing the total debit balance to £3389. This deficit would have been considerably more but for the generosity of Mr. H. L. Cohen, the chairman of the hospital.

SMALL-POX IN DERBY.—As Derby has not been free of small-pox since 1924, the Health Committee intends to ask the Ministry of Health to make regulations under the Public Health Act, 1875, with special reference to power of entry to infected dwellings, power to make house-to-house visitation in infected areas, and penalties for giving false information. The persistence of the disease is attributed to the carelessness and indifference of persons affected or of those responsible for them, to concealed cases, and to the fact that close contacts are not vaccinated. The medical officer of health has been authorised to issue a public warning about the undesirability of large gatherings of children. Isolation hospital accommodation has been taxed to the utmost, and the medical officer of health has had to obtain extra medical assistance.

INTERNATIONAL SOCIETY OF SURGERY.—A congress will be held at Rome from April 7th to 10th of this year by the International Society of Surgery, and the provisional programme has now been issued. The five subjects set down for the scientific sessions are: The Curi-Therapy of Uterine Cancer, the Treatment of Abscess of the Liver, the Surgery of Cerebral Tumours, the Surgery of the Spleen, and the End-results of Jacksonian Epilepsy. Contributions to the proceedings are promised from well-known authorities in France, Spain, Switzerland, Egypt, and this country, the absence of German and Austrian *rapporteurs* being a comment upon the political situation. The congressists will have opportunities of attending operations at the hospitals, they will be entertained by the municipality, excursions have been arranged to Tivoli and Hadrian's Villa, and the Italian members of the society will entertain their colleagues at dinner.

THE death occurred on Sunday last, Feb. 7th, at his residence in Hampstead, of Dr. Henry Rayner, formerly President of the Medico-Psychological Association, and a well-known authority on mental diseases.

VICTORIA HOSPITAL, SOUTHEND-ON-SEA.—Lord Elveden, the borough Member, has given £20,000 and 12 acres of land at Westcliff towards the erection of a new hospital. Some months ago the medical officer of health reported that the accommodation in the present hospital was "grotesquely inadequate," and that the inadequacy was due to lack of financial support. Lord Elveden has inspected many modern hospitals, and the new building is to embody their best features.

NORTH STAFFORDSHIRE INFIRMARY.—Last year the workmen of the district served by this hospital subscribed £27,000. This sum, which exceeds the amount collected from this source in the previous year by £5000, and is more than half of the total income of the hospital, was the result of an appeal for an additional annual income of £6000 to maintain the new extension which will cost £150,000. When the extension is completed it is claimed that this will be the largest hospital outside London.

DONATIONS AND BEQUESTS.—Mrs. E. Roweroft, of Polmuir, Torquay, has intimated her decision to follow her £100,000 gift for a new Torquay hospital by an additional £13,000 to enable the hospital to start free of debt, the tenders having proved to be in excess of the sum anticipated.—Mr. Isaac Mort, Patricroft, Manchester, left on the death of his wife £500 each to the Manchester Royal Infirmary and the London Hospital, £250 to the Eccles and Patricroft Hospital, £150 to the West Ham Hospital, and £50 each to the Leicester Infirmary and the Heckmondwike Coöperative Society for the medical charities of Heckmondwike.—Mrs. Mary Wellington Elgood, Tenterden, Kent, formerly of Leicester, left £1000 to the Leicester General Infirmary.—Mr. Frederick Whitehead, Oldham, left a legacy of £1000 free of duty to the endowment fund of the Oldham Royal Infirmary.—Mr. Augustus William Summers, Clifton Down, Bristol, left £1000 to the Bristol Eye Hospital, £500 each to Müller's Orphanage, Bristol, the Blue Maids Orphanages, Bristol, and the Home for Little Boys, Kent, £250 each to the Bristol Royal Infirmary and the Bristol General Hospital.

KING EDWARD MEMORIAL HOSPITAL, BOMBAY.—This hospital was opened by the Governor of Bombay on Jan. 22nd. The building has been under construction for five years and is designed on the modern pavilion system. It will accommodate 284 patients and allows for future expansion. It consists of a central administration block, four ward pavilions, two fine theatres, an out-patient department, an ophthalmic hospital, a nurses' home, a maternity wing, a pathological department, a laundry, and servants' quarters. There is also accommodation for eight medical and surgical officers, for a matron, and 50 nurses. Attached is a medical college already completed and in working order. This contains a number of fine lecture-rooms and laboratories, and in addition a hostel to accommodate 100 students. The total cost of college and hospital, together with equipment, is 83 lakhs of rupees, and the upkeep is estimated at a recurring expenditure of 6 lakhs. The novel feature of the King Edward Hospital and College is the fact that the medical and surgical work is to be carried on entirely by non-official medical men on honorary lines. No member of the I.M.S. will be on the staff. This is the first institution raised by public funds to work on these lines in India.

ULSTER HOSPITALS.—At the annual meeting of the Belfast Hospital for Diseases of the Skin Dr. S. W. Allworthy reported that skin diseases were largely on the increase, chiefly in consequence of overcrowding and unemployment. A new laboratory is to be equipped for research purposes.—It has become urgently necessary to rebuild the Belfast Hospital for Sick Children on a new site, and an endeavour is being made to raise money for the purpose. At the annual meeting it was lamented that a hospital which had held the premier position in Northern Ireland was now, in consequence of the inadequacy of the building, surpassed by others, some of which are Poor-law institutions. The minimum sum required is £80,000, but the scheme of the medical staff would involve an expenditure of £140,000, towards which only £17,000 is at present available.—The Duke of Abercorn, Governor of Northern Ireland, has opened a new cottage hospital at Coleraine, Ratheane House having been acquired and adapted. The old building has been purchased by Dr. Ranken Lyle, of Newcastle-upon-Tyne, who has given it to Ulster for a maternity hospital and child welfare centre. Prof. J. A. Lindsay, chairman of Belfast Royal Victoria Hospital, describes the new cottage hospital as "beautiful and fully up to the best modern standards." It includes a theatre, a laboratory, and an X ray room.

Parliamentary Intelligence.

NOTES ON CURRENT TOPICS.

Births and Deaths Registration.

ON Feb. 5th Mr. TINNE presented a Bill to amend the law relating to the certification of deaths and the disposal of the dead, which was read a first time.

HOUSE OF COMMONS.

WEDNESDAY, FEB. 3RD.

Charges by Opticians to Insured Persons.

Mr. RHYS DAVIES asked the Minister of Health whether he had received representations regarding excessive charges being made by opticians for examination and supply of glasses to insured persons as additional benefits under Section 75 of the National Health Insurance Act; and what steps he proposed to take to prevent any imposition upon the funds of approved societies and the poorest section of the community represented by insured persons.—Mr. N. CHAMBERLAIN replied: I have not received any general representations on this subject, and have at present no power to make regulations with regard to the arrangements or charges for the provision of optical appliances under schemes of additional benefits. The schemes, however, that became operative in July last, following the second valuations, contain provisions enabling an approved society to restrict the cost to its own funds in respect of appliances to such charges as are reasonable. I understand that the general question of the powers of the central department to supervise the provision of this and other additional benefits in the nature of treatment has received the consideration of the Royal Commission on National Health Insurance, whose report I am expecting shortly.

THURSDAY, FEB. 4TH.

Factory Legislation.

Mr. ROBINSON asked the Home Secretary when it was proposed to introduce the Bill consolidating and amending the Factory Acts.—Sir W. JOYNSON-HICKS replied: For the reasons which I explained in a recent speech it is not proposed to proceed with the Factory Bill during the present session, but it is the intention of the Government that the Bill shall be passed during the course of the present Parliament.

The Effect of Disease on Morals.

Mr. AMMON asked the Home Secretary whether his attention had been called to the case of a youth suffering from the after-effects of encephalitis lethargica, who was recently charged at the Lambeth police-court with stealing a shilling; and would he say what provisions, medical or otherwise, were made to distinguish moral and mental defectives from ordinary criminals brought before the magistrates.—Sir W. JOYNSON-HICKS replied: Yes, Sir. My attention was first called to this case while the lad was in prison on remand, and I asked the Medical Commissioner of Prisons to attend at the court and give the magistrate a full account of the examination made by the prison doctors. The lad was released on probation, and his future welfare is receiving careful attention. With regard to the last part of the question, courts have wide powers of dealing with persons who are certifiable under the Mental Deficiency Act, but persons whose morals have been affected by the disease in question may not be certifiable either under this Act or the Lunacy Acts; and the problem raised by these cases has been engaging the attention of my right hon. friend the Minister of Health, in consultation with the Home Office.

Prisoners and Mental Disease.

Mr. AMMON asked the Home Secretary whether his attention had been called to the sentence of 12 months' hard labour, passed at the Old Bailey on Jan. 19th last, on a man who was certified on medical authority to be suffering from brain trouble; whether he noted the expressed wish of the learned Recorder in passing sentence that Parliament would give judges necessary powers to send such cases to places, other than prisons, where they could get more expert treatment; and would he consider the subject with a view to introducing the necessary legislation.—Sir W. JOYNSON-HICKS replied: Yes, Sir, and I have obtained a special medical report upon the prisoner in question. Upon the information before me, I have no grounds for believing that the sentence passed upon this man was other than appropriate. As regards the Recorder's suggestion that special institutions should be provided for certain offenders who are not insane, I can only say that I will give this question most careful consideration.

National Health Insurance Report.

Mr. RHYS DAVIES asked the Home Secretary if he was now in a position to state the approximate date upon which the report of the Royal Commission on National Health Insurance might be published.—Sir W. JOYNSON-HICKS replied: I understand it is hoped that the report will be available about the end of the present month.

Leyton School for Defective Children.

Mr. ROBERT MORRISON asked the President of the Board of Education whether, seeing that the Board recently put considerable pressure upon the local education authority of Leyton to provide a special school for defective children, with the result that the authority had now prepared detailed estimates for providing the school, he would state for what reason the Board have now refused their sanction.—Lord E. PERCY replied: I have asked the Leyton authority to postpone this scheme until it can be considered in connexion with the programmes which I have requested authorities to submit to me, or, in any case, until I have before me the revised estimate of local authorities for the coming year, and arrangements have recently been made for a deputation from the authority to lay their case before my department.

Milk Deficient in Fat.

Lieut.-Colonel WATTS-MORGAN asked the Minister of Health if he was aware that in the present state of the law no conviction could be secured against any milk vendor, no matter what degree of deficiency in butter-fat or excess of water might be proved to be present, if the vendor was able to produce evidence to prove that the milk was sold as it came from the cow; and if he would take steps as early as possible to secure that milk sold to the public was up to the required standard.—Mr. N. CHAMBERLAIN replied: I am aware that the law is substantially as stated. There are practical difficulties in laying down and applying any fixed standard which would be of advantage to consumers, and, as at present advised, I am not prepared to introduce legislation for that purpose.

Smoke Abatement.

Mr. CAMPBELL asked the Minister of Health when it was proposed to introduce a Bill dealing with smoke abatement.—Mr. N. CHAMBERLAIN replied: I hope that a Bill on this subject will be introduced on an early date in another place.

Incidence of Miners' Phthisis.

Mr. DAVID GRENFELL asked the Secretary for Mines whether he was in a position to report on the inquiries into the incidence of miners' phthisis among men engaged in rock-boring with compressed-air machines in coal mines.—Colonel LANE-FOX replied: The inquiry to which I referred in my reply to the hon. Member on July 7th, 1925, has now been completed, and supports the view that in certain rare conditions dry rock-drilling may be dangerous. Certain preventive measures have been suggested as a result of the inquiry, and the inspectors are dealing with the question of their adoption. Medical inquiry is also proceeding to ascertain whether the disease has, in fact, been caused in the places where dangerous conditions have been found.

Physical and Mental Disability among Air Force Recruits.

Mr. HORE-BELISHA asked the Secretary of State for Air what percentage of new recruits for the Royal Air Force were discharged on account of some physical or mental disability in 1925 within 12 months of their acceptance.—Sir S. HOARE replied: Less than 1 per cent. of recruits were discharged for the cause stated during 1925.

Dental Treatment of School-Children.

Mr. RENNIE SMITH asked the President of the Board of Education whether, in obedience to Circ. 1371 and Mem. 44, the estimate drawn up by the local education authority of Berkshire for dental treatment of children, in consultation with the Board's medical officers, had now been dropped.—Lord E. PERCY replied: The Berkshire authority have submitted revised estimates for 1926–27 showing a reduction in respect of special services, as compared with their previous estimate, but I have received no communication from them indicating that this reduction is due wholly or in part to a postponement of their scheme for dental treatment.

Physical Deficiency in Naval Recruits.

Mr. HORE-BELISHA asked the First Lord of the Admiralty how many boys and men respectively were accepted in the year 1925 for His Majesty's Navy; how many were rejected on account of some physical deficiency; and what were the corresponding percentages of rejections to acceptances in the years 1910, 1911, 1912, and 1923.—Mr. DAVIDSON (Parliamentary Secretary to the Admiralty) replied: The total boys and men entered in the Royal Navy and Royal Marines during the year 1925 was 4092 and 2979 respectively—i.e., 13 per cent. of those applying. The total number of men and boys "failed" by medical officers during this period was 4753; separate figures for men and boys are not available, and there are no records of the number rejected by recruiters for physical defects. Comparative figures of rejections for the years 1910 and 1911 are not available. During the year 1912–13, of those examined by medical officers (men and boys), 26·29 per cent. were rejected, and acceptances were 30·22 per cent. of total number of applicants. During the year 1923–24, of those examined by medical officers (men and boys), 39·47 per cent. were rejected, and acceptances were 14·83 per cent. of the total number of applicants.

MONDAY, FEB. 8TH.

Venereal Disease in Bombay.

Mr. JOHNSTON asked the Under Secretary of State for India whether he was aware that in the Kamatipura district of Bombay there were hundreds of women kept in iron cage houses for prostitution purposes; that the tramcars passed down the street between these cages; that there were instances where from 6 to 12 women were in one room; and that the women solicited from behind the cage bars; was he further aware of the growth of venereal disease in Bombay; and what steps, if any, it was proposed to take in the matter.—Earl WINTERTON replied: I am aware that the horrible practice referred to by the hon. Member in the first part of his question is, unfortunately, too common in the East, though I do not believe it ever reached in Bombay City or elsewhere in British India such a pitch of degradation as the question alleges. The Bombay Government, within whose competence the matter is, passed a law two years ago which should make it far easier to deal with the worst scandals of organised prostitution.

Driving by the Physically and Mentally Unfit.

Colonel DAY asked the Minister of Transport whether, in view of the fact that there had lately been numerous summonses brought against deaf, dumb, or maimed drivers who, owing to their physical defects, could not observe the rules and regulations of the road for their own or other people's safety, he would introduce legislation or take steps to prevent licences being issued to people who were not entirely physically and mentally fit.—Colonel W. ASHLEY replied: I have the general question of the issue of driving licences to persons suffering from physical disabilities under consideration in connexion with the Bill for better regulation of road vehicles referred to in the Gracious Speech from the Throne.

Medical Director at Colonial Office.

Mr. RAMSDEN asked the Secretary of State for the Colonies whether it had now been decided to appoint a medical director in the Colonial Office to act as a liaison officer between the Crown Colonies and the Civil Research Committee, and as adviser to him on medical matters.—Mr. ORMSBY-GORE (Under Secretary for the Colonies) replied: The Secretary of State hopes shortly to be able to make a definite announcement regarding the appointment of a medical adviser in the Colonial Office.

Unhealthy Conditions in Bombay Cotton Mills.

Mr. SCURR asked the Under Secretary of State for India whether he was aware of the unhealthy atmospheric conditions prevalent in the cotton mills of Bombay; and what action the Government of India proposed to take to remedy this defect.—Earl WINTERTON replied: The section of the Factory Report of the Bombay Presidency for 1924 dealing with the subject records some advance in dealing with the problem of atmospheric conditions. The Government of India instituted an inquiry by an expert investigator in 1921; his report was presented in 1923 and has been published. The Government of India subsequently consulted local governments on a number of suggestions for improving the conditions.

Registration of Nursing Homes.

Mr. GERALD HURST asked the Minister of Health whether he intended this session to appoint a committee to inquire into the desirability of legislation with regard to the registration of nursing homes; and, if so, what type of committee would be set up.—Sir KINGSLEY WOOD (Parliamentary Secretary to the Ministry of Health) replied: In accordance with the undertaking given by my hon. and gallant friend, the Parliamentary Under Secretary for Health for Scotland, on June 19th last, steps are being taken for the appointment of a Select Committee to inquire into this question.

Compensation under Tuberculosis Order.

Brigadier-General CLIFTON BROWN asked the Minister of Agriculture how much compensation money had been paid to farmers under the Tuberculosis Order of 1925; and how many cattle had been destroyed for tubercle under this Act.—Mr. GUINNESS replied: The Tuberculosis Order came into force on Sept. 1st last, and the returns of animals slaughtered under orders from the local authorities up to the end of the year 1925 have only partially been received. It is, however, estimated that during the five months ending Jan. 31st

about 8600 cows will have been slaughtered, on which about £38,000 will have been paid in compensation.

Case of Filaria in India.

Mr. SCURR asked the Under Secretary of State for India whether he was aware that Narenda N. Bandopadhyaya, a political prisoner, interned last October under the Bengal Ordinance, was now seriously ill with filaria; that he was unable to walk as a result; that the disease had been contracted in gaol; and whether the Government would, in view of these facts, consent to his release on compassionate grounds.—Earl WINTERTON replied: I have not received any information about this detenu's health. But the Bengal Government will certainly have considered all the facts.

TUESDAY, FEB. 9TH.

UNQUALIFIED MEDICAL PRACTICE.

Dr. LITTLE called attention to the spread of unqualified practice in medicine and surgery by osteopaths, chiropractors, and other irregular practitioners; and moved "That, in the opinion of this House, an authoritative inquiry with the object of making recommendations to Parliament for dealing with the whole position of irregular practice in medicine and surgery, is urgently necessary." He said that the spread of unqualified medical practice was a fact that must be admitted. The reasons were many, but perhaps the most important was the length of the medical curriculum. It was not true, as was sometimes represented, that British medicine was a system of knowledge confined to the British Islands and the British Empire; it was partly international medicine. It had one distinction—namely, that its students were taught with the patient always in view. Another important quality of international medicine was that any discovery made by one individual was immediately made known to the rest of the world. The note of unqualified practice was secrecy of the methods employed. Osteopaths were most in the public eye at present and were in many respects very different from other groups of unqualified medical practitioners. In the first place, they claimed to be as fully trained in medicine and surgery as were the ordinary students in our medical schools. But nine-tenths of their training was received in the United States. Their system was based on a formula or theory propounded 50 years ago by an obscure medical practitioner in one of the small towns in the Western States of America. That theory had been examined and had been rejected by international medicine and nowhere more thoroughly than in the United States. It had become necessary to grade the foreign colleges from which students came who applied for the right to practise in this country and three grades had been instituted—A, B, and C. Applicants from colleges in Grade A were allowed to sit for an examination set by the licensing body of this country without having done any of the preliminary subjects of medicine or surgery. That fact disposed of the allegation that the medical profession was a very close trade-union which refused to admit any outsiders.

An emphatic rejection of the claims of the osteopaths was that they were not allowed to obtain commissions in the naval and military services of the United States. The osteopaths held that the treatment for ills was the manipulation of the bone structure of the body, and the theory that all disease arose in the spine and might be helped by manipulating the spine was the basis of osteopathy. The five great scourges of the modern world were tubercle, syphilis, malaria, cancer, and insanity. Three out of five of these diseases were regarded by all the world, except perhaps the osteopaths, as being due to bacterial effects. One could see the bacteria which caused these diseases under the microscope. In the case of cancer all the modern work pointed to a bacteriological form, direct or indirect, and a very large number of cases of insanity were unquestionably due to bacteriological effects. In the case of tubercle the damage was greatly increased by the manipulation of tuberculous joints.

With regard to the position of the medical profession in regard to osteopathy, he would liken the profession to the position of a generous and wise wife in a happy marriage. He pictured the husband as the public, and osteopathy as a flighty young flapper of superficial attraction. He understood that the expression "giving the glad eye" had now been raised to the status of a Parliamentary expression by use among the front benches. The "glad eye" had passed between the husband and the younger lady. The wife at home had been not entirely oblivious to that flirtation, but had been prudent enough not to interfere with it in any way. The medical profession was not unduly concerned, and it was not from their point of view that the House ought to approach the subject. It was not the rich, but the poor, who suffered most from this practice. No one could have held, as he had, for nearly 30 years, the position of a hospital physician without being really saddened by the cases that one saw of the terrible neglect of the poor from the point of view of the unqualified medical treatment. He referred to the dispensing chemists, the optician who pretended to be an oculist, and the dentist who was a quack and who fitted new plates upon horrible septic stumps which were poisoning the whole system. No robbery was worse than the robbery of unqualified practice. No spoliation of the poor was more horrible than that. It would astonish the House to learn that, with the exception of England, Germany, and five of the Australian States, practically all the countries of the civilised world penalised unqualified practice. For that reason he asked for an inquiry, which would allow this country to reconsider its standpoint on this matter compared with the rest of the world.

Mr. HILTON YOUNG, who seconded, said that as a matter of public interest they must all feel that the medical and surgical professions were the front line in the trenches in the great war against disease. No effort on their part should be wasted which would tend to the maintenance, discipline, and efficiency of that army.

Mr. ATKINSON said he was unable to accept the resolution which condemned a body of men who were doing work of great value. He would, therefore, move an amendment to provide that the object of the inquiry should be to secure the recognition and registration of manipulative practitioners having approved qualifications. He was asking the House definitely to accept the policy of recognition by registration of persons of approved skill. The committee of inquiry could settle what the necessary qualifications should be; that ought not to be a difficult matter. In America, for example, there were seven colleges under the supervision of the American Osteopathic Association. The standard set there was high. There were hospitals and sanatoria working in America under the same supervision, and it was notorious that their work was done efficiently and well. In 1892 there was only one osteopath in the world. Now, in America, there were upwards of 8000 fully qualified, and hundreds more scattered about the world. Why had not progress been made in this country? Simply and solely because of the opposition of the medical profession. They were all familiar with the notorious case of Dr. Axham, who was hounded out of his profession because he administered chloroform for the most able manipulator. "I remember 25 years ago," continued Mr. Atkinson, "my father being a cripple. He consulted a number of doctors in vain and it appeared as if he would become a cripple for life until he went to see Mr. (now Sir H.) Barker. He was absolutely cured in a short time and he has never been ill since. But the cure involved the most excruciating pain, and in a civilised country suffering of that kind ought not to be necessary when there were such obvious means of preventing it." Why was the country to be denied the service of the osteopath. It was a branch of knowledge which did not form part of the medical curriculum. The ideal way would be for the medical profession in this country to bring it within the medical curriculum, and then persons who showed special skill in that branch of cure could specialise, and the public could have the full benefit of their knowledge.

Dr. SHIELS said he thought that Dr. Little's motion was what military men would call a sort of offensive defensive. Whether that was entirely desirable was another matter, but personally he felt that an inquiry such as the hon. gentleman desired was not necessary at the present time. At the same time he thought that some observation required to be kept on unqualified practice. He objected still more to the terms of the amendment. While the medical profession had derived advantages from the contributions of outsiders, there were definite limits to the extent to which unorthodox practice should be permitted, and that limit was the safety of the public. He thought that the bulk of the medical profession would be prepared to admit that Sir Herbert Barker had performed very considerable services as a practitioner and that he was a man of no mean skill. But Sir Herbert Barker's case was an exceptional one. After all, bone-setting formed a very small part of medicine and surgery, and a general diploma was quite impossible in a case like that. As to osteopathy, the medical profession did not object to it being practised, but they said that before any man should get a medical qualification to practise medicine or surgery on any system he ought to have a definite minimum of fundamental knowledge which was essential.

Mr. N. CHAMBERLAIN (Minister of Health) said that the House would agree that to ask this country to accept diplomas from another country, into the value of which we really could not pretend to examine and over the qualifications of which we had no control, was really not a practical proposition.

Mr. B. PETO said it was hardly accurate to say that he and his friends were asking for American osteopathic degrees to be recognised in this country. The British Osteopathic Association wanted to set up their own college and their own course of training and their own degrees

for British subjects, and not to have importations from America.

Mr. CHAMBERLAIN said there was no reason why any properly qualified medical man in this country to-day should not specialise, if he liked, in osteopathy. As a matter of fact, some of the most celebrated medical men in this country had done so. Nor was there any reason why the osteopaths should not set up their own colleges; he knew of no reason to stop them. That was the only way, he thought, to achieve what they wanted. If they wanted to have a register of osteopaths in this country let them set up their own colleges, give their own diplomas, and then they would be forced to do what had been done in America. Their curriculum would gradually have to conform to something that would approach to the normal curriculum in this country. He could not vote either for the motion or for the amendment. He did not think it was necessary to prohibit, and he did not think public opinion would be in favour of prohibiting unqualified practice. But the proposals of the amendment seemed impossible to defend, and, on the whole, he thought the House would do best to leave things to develop in the normal, ordinary way.

Colonel SINCLAIR, who said he was the only member of the General Medical Council in the House, was speaking when the motion was "talked out" at 11 o'clock.

Birth Control.

Mr. THURTLE asked leave to present a Bill to authorise local authorities to incur expenditure, when deemed expedient, in conveying knowledge of birth control methods to married women who desired it. He said that the broad purpose of the measure was to make known to very poor women information which would enable them to restrict their families, such as was at present utilised by wealthier women. Year after year the falling off in the birth-rate became more and more marked in the upper and middle classes, while among the poorer people it was almost stationary. In Westminster the birth-rate was 11·2 per 1000; in Shoreditch 25 per 1000, and in Chelsea 14·3 per 1000. In districts where overcrowding was most rampant and poverty most acute there was a very high birth-rate. The Bill would throw no charge on the national Exchequer and was merely permissive. We were expending money in broadcasting information about sanitation, personal hygiene, diet, tuberculosis, and venereal disease, solely on the grounds of maintaining public health, and there was not a phase in that work that was not rendered more difficult by the fact that in the poorest districts women were having larger families than were good, either for themselves or for the State.

The Rev. J. BARR opposed the introduction of the Bill. He said that in questions like this moral instincts and religious prejudices were as good a guide as conscience itself. If they were defied or ignored it would be at our own peril, and the peril of the State.

Leave to bring in the Bill was refused by 167 votes to 81.

Unqualified Optical Specialists.

Mr. BRIANT asked the Home Secretary if he would consider the introduction of a Bill to prevent unqualified persons posing as optical specialists.—Sir KINGSLEY WOOD replied: In view of other commitments my right hon. friend is not able to consider the introduction of legislation on this subject.

Effects of Stone Dust in Mines.

Mr. CHARLES EDWARDS asked the Secretary for Mines whether he was aware of the number of men in mines suffering from the effects of stone dust; whether he was aware that medical men were certifying this disease and that the numbers were rapidly increasing; whether he had seen the comments of a high court judge on this matter, who spoke of the necessity of scheduling this disease; and whether his department was taking any steps to ascertain the facts in regard to this, with a view to inclusion in the schedule for compensation purposes.—Colonel LANE-FOX replied: On the general question I would refer to my reply on Feb. 4th. It should be emphasised that it is in rare and exceptional cases of dry drilling in siliceous rock that men are exposed to danger, and I have at present no evidence that the number of men affected is increasing. The judicial comments to which the hon. Member refers have not been brought to my notice, but he may rest assured that I am keeping my right hon. friend, the Home Secretary, in close touch with the results of my investigations.

THE fiftieth birthday of the Association pour l'Avancement des Sciences will be celebrated at a congress to be held at Lyons this year. From July 24th to August 1st there will be an international exhibition of "all that relates to applied science."

Medical Diary.

Information to be included in this column should reach us in proper form on Tuesday, and cannot appear if it reaches us later than the first post on Wednesday morning.

SOCIETIES.

ROYAL SOCIETY OF MEDICINE, 1, Wimpole-street, W.

MONDAY, Feb. 15th.—4.30 P.M., GENERAL MEETING OF FELLOWS. Special Discussion on Focal Sepsis as a Factor in Disease.

TUESDAY.—5.30 P.M., GENERAL MEETING OF FELLOWS. 5 P.M., THERAPEUTICS AND PHARMACOLOGY. Laboratory Meeting at Guy's Hospital. Prof. C. S. Gibson and Mr. H. Burton: The Trypanocidal Action of some New Organic Arsenic Compounds. Prof. A. L. Gibson and Prof. C. S. Gibson: Demonstration of Hortvet's Apparatus for Cryoscopic Determination. Dr. E. P. Poulton: Demonstration of a New Method of Administering Oxygen. Mr. J. H. Ryffel, Mr. A. A. Osman, and Mr. W. W. Payne: Prophylactic Use of Alkalis in Anuria. 8.30 P.M., PATHOLOGY.

WEDNESDAY.—5 P.M., HISTORY OF MEDICINE. Mr. E. Muirhead Little: Glisson as an Orthopædic Surgeon. Colonel W. P. MacArthur: Some Notes on Old-time Leprosy; the Case of King Robert the Bruce.

THURSDAY.—5 P.M., DERMATOLOGY. (Cases at 4 P.M.). Dr. H. W. Barber: Dermatitis Scrofulosa. Dr. M. S. Thomson: Syringo-Cyst Adenomata. Dr. E. G. Ffrench: Lupus Erythematosus.

FRIDAY.—8.30 P.M., ELECTRO-THERAPEUTICS. Dr. E. P. Cumberbatch: Experiences on a Tour of Physiotherapy Clinics in America.

MEDICAL SOCIETY OF LONDON, 11, Chandos-street, W.

MONDAY, Feb. 15th.—9 P.M., Dr. E. Farquhar Buzzard: Principles of Treatment in Relation to Diseases of the Nervous System. (First Lettsomian Lecture.)

MEDICO-LEGAL SOCIETY, 11, Chandos-street, W.

TUESDAY, Feb. 16th.—8.30 P.M., Dr. G. Halliday Sutherland: The Enlargement of the Prostate in Relation to Criminal Offences. To be followed by a discussion.

CHELSEA CLINICAL SOCIETY, St. George's Hospital.

TUESDAY, Feb. 16th.—8.30 P.M., Discussion on Endocrines. Speakers: Prof. Swale Vincent, Dr. E. Bellingham-Smith, and Dr. T. B. Hyslop.

ROYAL SOCIETY OF TROPICAL MEDICINE AND HYGIENE, 11, Chandos-street, Cavendish-square, W.

THURSDAY, Feb. 18th.—8.15 P.M., Dr. Patrick A. Buxton (Milner Research Fellow with the New Zealand Government): The Depopulation of the New Hebrides and other Melanesian Islands.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn-fields, W.C.

MONDAY, Feb. 15th.—5 P.M., Mr. Stanford Cade: Cholecystography

WEDNESDAY.—5 P.M., Dr. Alfred Piney: The Importance of Hæmatology in Surgery.

FRIDAY.—5 P.M., Dr. Piney (lecture concluded).

FELLOWSHIP OF MEDICINE AND POST-GRADUATE MEDICAL ASSOCIATION, 1, Wimpole-street, London, W.

MONDAY, Feb. 15th, to SATURDAY, Feb. 20th.—Fellowship of Medicine lectures, Medical Society, 11, Chandos-street, W. Thursday, 5 P.M., Dr. R. A. Young: Artificial Pneumothorax as a Means of Treating Pulmonary Tuberculosis. Wednesday, 2 P.M., Special Clinical Surgery Demonstration at ST. PETER'S by Mr. Swift Joly. Open to Fellowship members and ticket holders only.—QUEEN MARY'S HOSPITAL, Stratford, E. Special Post-graduate Course in General Medicine and Surgery. Sessions daily from 10 A.M. till 5 P.M., Operations, Demonstrations, Lectures.—LONDON LOCK HOSPITAL, Dean-street, W. Clinical Course. Instruction daily in the O.P. Department.—COMBINED CHILDREN'S COURSE, Paddington Green Hospital, Victoria Hospital (Tite-street, Chelsea), and the Children's Clinic, Cosway-street, N.W. Morning and afternoon sessions daily.—LONDON TEMPERANCE HOSPITAL, Hampstead-road, N.W. 4.30 to 6 P.M., Special Course for General Practitioners. Further information from the Secretary of the Fellowship of Medicine.

UNIVERSITY COLLEGE HOSPITAL MEDICAL SCHOOL.

THURSDAY, Feb. 18th.—4.15 P.M., Dr. Charles Singer: The History of Rickets (third of four lantern lectures, open to medical students of the University of London).

LONDON SCHOOL OF DERMATOLOGY, St. John's Hospital, Leicester-square, W.C.

TUESDAY, Feb. 16th.—5 P.M., Dr. J. H. Sequeira: Tuberculosis Cutis (I.).

THURSDAY.—5 P.M., Dr. Ingram: Pathological Demonstration.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.

MONDAY, Feb. 15th.—10 A.M., Surgical Out-patients: Mr. W. E. Tanner. 10.30 A.M., Gynæcological Operations: Mr. A. E. Giles: Throat, Nose, and Ear Operations: Mr. W. Ibbotson. 2 P.M., Medical, Surgical, and Gynæcological Clinics, Operations. 6.30 P.M., Venereal Department.

TUESDAY.—2 P.M., Medical, Surgical, Throat, Nose, and Ear Clinics, Operations. 4.30 P.M., Mr. N. Fleming: Corneal Conditions.

WEDNESDAY.—10.30 A.M., Surgical Operations: Mr. E. Gillespie. 2 P.M., Medical, Eye, and Skin Clinics, Operations. 5.30 P.M., Venereal Department.

THURSDAY.—10.30 A.M., Dental Out-patients: Mr. E. S. Pierrepont. 2 P.M., Medical, Surgical, and Throat, Nose and Ear Clinics, Operations. 5 P.M., Operations.

FRIDAY.—10.30 A.M., Eye Operations: Mr. N. Fleming. 2 P.M., Surgical, Medical, and Children Clinics, Operations. 3 P.M., Gynæcological Clinic. 6.30 P.M., Venereal Department.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen-square, Bloomsbury, W.C. 1.

POST-GRADUATE COURSE: FEBRUARY–MARCH, 1926.

CLINICAL LECTURES AND DEMONSTRATIONS.

MONDAY, Feb. 15th.—2 P.M., Out-patient Clinic: Dr. Hinds Howell. 3.30 P.M., The Aural Causes of Vertigo: Mr. Just.

TUESDAY, Feb. 16th.—2 P.M., Out-patient Clinic: Dr. Walshe. 3.30 P.M., Cranio-cerebral Topography: Mr. Armour.

THURSDAY, Feb. 18th.—2 P.M., Out-patient Clinic: Dr. Kinnier Wilson. 3.30 P.M., Testing the Eighth Nerve: Mr. Just.

FRIDAY, Feb. 19th.—2 P.M., Out-patient Clinic: Dr. Adie. 3.30 P.M., Surgery of the Spinal Cord: Mr. Sargent.

The fee for the Course, including Pathology Lectures, is £5 5s. For those who hold Perpetual Tickets the fee is £3 3s.

Mr. Armour and Mr. Sargent operate at the Hospital on Tuesday and Friday mornings at 9 A.M., or at such other times as may be announced.

Any part of the Course may be taken separately. Special arrangements will be made for those unable to take the whole Course.

Fees should be paid to the Secretary of the Hospital at the Office on entering for the Course.

J. G. GREENFIELD, Dean of Medical School.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, W.

WEDNESDAY, Feb. 17th.—Dr. Harrison: Tests of Hepatic Efficiency.

THURSDAY.—4 P.M., Dr. Shires: X ray Diagnosis of Diseases of the Chest.

QUEEN CHARLOTTE'S MATERNITY HOSPITAL, Marylebone-road, N.W.

THURSDAY, Feb. 18th.—5 P.M., Mr. C. S. Lane-Roberts: Ectopic Pregnancy.

ROYAL DENTAL HOSPITAL OF LONDON SCHOOL OF DENTAL SURGERY.

WEDNESDAY, Feb. 17th.—5.30 P.M., Mr. E. H. Drinkwater: Some Conditions Influencing the Choice of Anæsthetic.

CENTRAL LONDON THROAT, NOSE AND EAR HOSPITAL, Gray's Inn-road, W.C.

FRIDAY, Feb. 19th.—4 P.M., Dr. Nicol Rankin: Purulent Rhinitis.

UNIVERSITY OF SHEFFIELD POST-GRADUATE CLINICS.

FRIDAY, Feb. 19th.—3.30 P.M. (at the Royal Hospital), Dr. Grout: Radiological Examination of Gastro-Intestinal Disease.

Appointments.

LACK, V. J., M.B., B.S., F.R.C.S. Edin., has been appointed Assistant Obstetric and Gynæcological Surgeon to the London Hospital.

MELVILLE, MARY ASHCROFT JESSIE, M.B., Ch.B. Glasg., House Surgeon, Victoria Hospital, Keighley.

ROBERTS, T. E., M.B., B.S. Lond., D.P.H., School Medical Officer for Portsmouth.

TYLECOTE, F. E., M.D., D.P.H. Vict., F.R.C.P. Lond., Honorary Physician to the Manchester Royal Infirmary.

VINER, GEOFFREY, M.D. Lond., F.R.C.S. Eng., Honorary Consulting Ophthalmic Surgeon to the Watford and District Peace Memorial Hospital.

Vacancies.

For further information refer to the advertisement columns.

Birmingham General Hospital.—Part-time Clin. Asst. in Ven. Dept. £350.

Birmingham, Queen's Hospital.—Third P. for Out-patients. £50.

Bradford City.—Asst. Bacteriologist. £600.

Brighton, New Sussex Hospital, Windlesham-road.—H.S. At rate of £50.

Bristol General Hospital.—Two H.P.'s., two H.S., Res. Obstet. O. and Cas. H.S. All at rate of £80.

Bristol Royal Infirmary.—Hon. S.

Canterbury, Kent County Mental Hospital, Chartham.—Jun. Fourth Asst. M.O. and Pathologist. £300.

City of London Hospital for Dis. of the Heart and Lungs, Victoria Park, E.—H.P. At rate of £100.

Derby, County Mental Hospital, Mickleover.—Jun. Asst. M.O. £400.

Exeter, Royal Devon and Exeter Hospital.—Res. Cas. O. At rate of £100.

Hampstead General and North-West London Hospital, Haverstock-hill, N.W.—H.P. Also Cas. M.O. Each at rate of £100.

Highgate Hospital, Dartmouth Park Hill, N.—Sen. Asst. Med. Supt. £400.

Holloway Sanatorium, Virginia Water, Surrey.—Med. Supt. £1600.

Hospital for Consumption and Dis. of Chest, Brompton, S.W.—Anæsthetist.

Hyde Borough.—M.O.H. £800-50-1000, plus travelling expenses.

Johannesburg, S. African Institute for Medical Research.—Pathologists. £1200, £1000, and £600 respectively.

Leeds Public Dispensary.—Sen. Res. M.O. £200.

Leicester Royal Infirmary.—H.S. At rate of £125.

London County Council.—Sen. M.O. £1219 12s.

London Hospital, E.—Vacancy on Hon. Surg. Staff.

Manchester, Ancoats Hospital.—Res. M.O. Also H.S. At rate of £150 and £100 respectively.

Manchester, St. Mary's Hospitals.—Res. Obstet. O. and Res. Surg. O. Each £200.

Northampton General Hospital.—H.P. and H.S. Each at rate of £150.

Norwich, Norfolk and Norwich Hospital.—H.S. £120.

Royal Chest Hospital, City-road, E.C.—S.

Royal College of Surgeons of England.—Election to Court of Examiners.

Royal Free Hospital, Gray's Inn-road, W.C.—Second Asst. to Venereal Diseases Clinic.

St. Mark's Hospital for Cancer, Fistula, &c., City-road, E.C.—H.S. at rate of £200.

Saint Pancras Dispensary, 39, Oakley-square, N.W.—Res. M.O. £175.

St. Peter's Hospital for Stone, &c., Henrietta-street, Covent Garden, W.C.—H.S. At rate of £75.

Salford Royal Hospital.—Radiologist. £300.

Samaritan Free Hospital for Women, Marylebone-road, N.W.—H.S. At rate of £100.

Shrewsbury, Royal Salop Infirmary.—H.P. £160.

Stoke-on-Trent, North Staffordshire Royal Infirmary, Hartshill.—Asst. Hon. S.

University College Hospital, Dental Dept., Great Portland-street, W.—Hon. Anæsthetist.

West Bromwich and District Hospital.—Res. H.S. £220.

West End Hospital for Nervous Diseases, Gloucester Gate, Regent's Park, N.W.—Sen. H.P. At rate of £150.

West London Hospital, Hammersmith, W.—Asst. Path. £250. H.P. and two H.S.'s. Each at rate of £200.

York County Hospital.—H.S. £150. Also H.S. for Eye, Ear, and Throat Dept. £150.

The Chief Inspector of Factories, Home Office, London, S.W., announces the following vacant appointments for Certifying Factory Surgeons: Alston, Cumberland; Cerrig-y-Druidion, Denbighshire; Haslemere, Surrey; Sherburn, Yorks, E. Riding.

Births, Marriages, and Deaths.

BIRTHS.

GEBBIE.—At Boston Bank, Hyde, Cheshire, on 7th inst., to Dr. and Mrs. N. Gebbie—a daughter.

MARRIAGES.

PHELAN—MACDONALD.—On Feb. 6th, at South Kensington, Major E. C. Phelan, D.S.O., *M.C.*, R.A.M.C., to Mrs. MacDonald, widow of Ian MacDonald, Highfield, Southampton.

DEATHS.

BATESON.—On Feb. 8th, after a short illness, at the Manor House, Merton, S.W., William Bateson, F.R.S., Director of the John Innes Horticultural Institute, Hon. Fellow of St. John's College, Cambridge, aged 64.

GORRIE.—On Feb. 5th, in a nursing home, following an operation Henry James Gorrie, O.B.E., L.R.C.P. and S., L.D.S., Edinburgh, in his 46th year.

HOYLE.—On Feb. 7th, at Glenroy, Blundell-avenue, Porthcawl, Dr. William Evans Hoyle, late Director, National Museum of Wales, and of Crowland, Llandaff.

N.B.—A fee of 7s. 6d. is charged for the insertion of Notices of Births, Marriages, and Deaths.

Notes, Comments, and Abstracts.

THE VOLUNTARY MENTAL PATIENT.

BY NORMAN R. PHILLIPS, M.D. BRUX.,
SENIOR ASSISTANT MEDICAL OFFICER, ST. ANDREW'S HOSPITAL FOR MENTAL DISEASES, NORTHAMPTON.

THE Royal Commission on Lunacy and Mental Disorder has now for some time been conducting its inquiries. It is clear, from the evidence made public, that the dissatisfied element has been given a fair hearing. It is to be hoped that equal consideration has been given to the more modest and retiring type of patient who shuns publicity and who is frequently grateful for the treatment he receives. That there are two sides to every question is no less true of the mentally afflicted. In these days it would be difficult to imagine any large collection of men or women which did not include a certain element of unrest, and it would be strange indeed not to find it in our hospitals for the insane. The only difference between the sane and the insane agitator is one of degree. Up to a certain point the agitator is tolerated by society. As soon, however, as he becomes dangerous to himself or others he is liable to be placed in an asylum. Many of these cases originally suffered from delusions of persecution and have later become persecutors themselves. Referring to this class of patient, Stoddart says: "When they find themselves sequestrated in an asylum, they are a plague to the institution. They criticise the routine, get up trumpery charges against the attendants, and write complaints against the medical officers to the Board of Control." Owing to lack of judgment they cannot understand that they are insane, and consequently they consider themselves illegally detained.

In this article I wish to draw attention to a very different type of patient from the one just mentioned. The sceptical person who visits a mental hospital expecting to find patients wrongfully detained is not only surprised at finding none, but is still more surprised when he meets with patients pleading in the most reasonable manner to be allowed to remain in the institution, and not to be given their freedom against their will. There is a definite group of patients who are never so well or free from mental trouble as when they are safely inside a mental hospital. Not a few of them have a sincere wish to be detained on a permanent basis. As far as they are concerned internment is final, it is in fact their only means of defence against themselves. In such cases the asylum—using the word in its true etymological sense—is a shelter from insanity which attacks them as soon as they are discharged. If allowed to return to society they become the inoffensive dupes of humanity. It may truly be said that liberty is the cause of their insanity, and they dread it because of their inability to adapt themselves to it. Paul Courbon gave the name of liberty psychosis (*psychose de la liberté*) to this type of insanity. "As soon as they are obliged to live an independent existence," he says, "they lose their self-control. Under the supervision of a protector they retain their reason. Liberty is the principal cause of their losing their mental balance." Investigation into their previous history will demonstrate the fact that many of these individuals were always of a timid and retiring disposition, dreading any responsibility in life, deficient in initiative, and, above all, lacking in judgment. As long as they can lean on someone possessing that energy which they themselves lack, they can conduct themselves normally, but when they are deprived of this support it becomes necessary for them to seek protection in a suitable institution, otherwise they rapidly lose their reason. There is increasing evidence to show that this psychopathic condition is largely due to faulty education by narrow-minded parents or guardians. After a course of treatment in a mental hospital has helped them to regain their mental balance, they are so gratified that it is not uncommon for them to wish to remain indefinitely rather than run the risk of again facing the world and its trials.

Clinical Record.

As an example I will quote the following case which has come under my observation.

Miss A., aged 53, admitted as a voluntary boarder into St. Andrew's Hospital in April, 1923.

Previous History.—One of a family of eight. At age of 10 years adopted by grandparents who lived in a country vicarage. She attended school until she was 17, when they removed to another small village. Her grandmother, who was 70 years old, had very narrow views. She completely dominated her young protégée, who was not allowed to do anything that could be done for her. She had even interfered with her school lessons, and arranged for her to be put in a class with older girls who were above her standard. She was left to sit still or potter about while her guardian superintended the work in the house or garden. Any initiative she showed was discouraged, and she gradually came to distrust herself, and to feel that she was as helpless as she was ignorant. She had bouts of depression at times, and would complain of a tired feeling and of aches and pains. There is no doubt that suggestion helped largely to produce these latter symptoms. As she herself says: "I was brought up to think it interesting to be delicate. My grandmother frequently told me that she was delicate herself in her younger days, and that she considered it vulgar for young ladies to be robust." Moreover, she frequently came in contact with invalids and "nervy" people—"it was fashionable to be an invalid at X." It is difficult to imagine anyone more unfitted to fight life's battles alone. Fortunately, when her grandmother died at the age of 86, she was able to return to her mother's care, where she found a very different state of things. The other members of her family had been brought up to do something useful in the world. Her younger sister, who managed the household duties, resented the intrusion of so incapable a person, and had not the patience to teach her how to work. By arrangement she was sent to stay with different families as paying guest, and she did a little light work. She knew she could always return to her mother, which she did frequently. The friction with her sister, however, became more and more acute, and culminated in the patient leaving home for good. The shock at this final separation from her mother was too great, and within a few weeks she lost her mental balance. She came to the conclusion that she was no good to anybody and never would be, and that the best thing she could do would be to disappear. She made an ineffectual attempt to drown herself. Asked if she would go to a mental hospital for treatment, she willingly assented.

Condition on Admission.—Physical health good; no signs of organic nervous disease.

Mental.—She was depressed and morbidly apprehensive. She was solitary and retiring, and lacking in self-confidence. Referring to her recent attempt at suicide, she said: "I felt I'd proved I was incapable of fighting life's battles alone, and I wanted to take strong measures."

For a while she was treated by rest in bed and psychotherapy. Four weeks after admission she was moved to a villa in the grounds. She gradually got more self-confidence and became less depressed. She occupied herself with reading, writing, and needlework. I now suggested she might do some weeding in the garden. This she took up with increasing zeal, saying it helped her to forget herself. Occasionally she would become depressed after an interview, lest she might have to leave. She told me that the discipline and order of the hospital had the restraining influence which she lacked when out in the world. Though her garden work was at first supervised, she began to show increasing aptitude and initiative. She gradually became so reliable that for some considerable time she has practically had charge of a large garden, which now looks better cared for and more beautiful in the summer than ever before. The patient also busies herself in other ways—especially dressmaking. She enters into the games and various entertainments. For some time she has had parole, which enables her to go unaccompanied into the town and country round, and to do her own shopping. During the first year she was liable to occasional attacks of depression, but she has been free from these for some time past. She still, however, shows apprehension at any suggestion of her leaving the institution.

The above case is merely an example of the type to which I wish especially to call attention. It may not be easy to point out another case exactly similar to this one. But there are a great many which resemble it in many respects. The same timidity, want of self-assurance, and incapacity to lead an independent existence is met with in men as well as in women, in younger as well as in older individuals. The fact that the poor are as liable to be affected as the rich is in favour of extending the voluntary boarder system to our public mental hospitals. When women of this type marry they may become just as dependent on their husbands for protection as they were formerly dependent on their parents; and the loss of the husband may in like manner be responsible for a mental collapse. It must not be supposed that all patients of this class are necessarily admitted into our mental hospitals as voluntary boarders. The mental breakdown, when it does occur, may necessitate certification. Nevertheless, because of their willingness to remain and coöperate in the treatment they are potentially voluntary boarders.

Prophylaxis.

The more closely one investigates the family history in such cases the more one becomes convinced that the principal ætiological factor is faulty environment. Preventive treatment, if it is to be effectual, must therefore begin in the homes and schools. It is not the child so much as the parents and school teachers who require treatment. If they are to develop normally, the child's mental faculties and natural

energies must be allowed greater freedom of action instead of being stifled by vexatious interferences and unnatural restraint. Children should be brought up to face life and extract from it and themselves the best possible results. The importance of these principles has long been recognised in America by the National Committee of Mental Hygiene, and it is interesting to note that a similar society has recently been formed in this country.

Treatment.

Though prophylactic measures on the lines mentioned would probably save any amount of treatment in after years, it should be borne in mind that it must of necessity take a considerable time before mental hygiene could possibly establish itself sufficiently in this country to be of any general practical value. It is our duty, therefore, to apply the best therapeutic remedies at our disposal when the patient is eventually brought to the hospital. All treatment should be directed to encouraging the patient to develop those faculties and energies which have been unduly restricted in the past, with the ultimate object of his gaining sufficient confidence to lead an independent existence. The patient may be induced to discuss his difficulties and worries, but it is obvious that, where the cause is largely environmental, little good can be expected from psycho-analysis. On the other hand, suggestion may be employed with advantage. It is most important to obtain the coöperation of the patient in the various stages of the treatment.

The case above described serves to illustrate the benefit which may be derived from occupational therapy. There is no doubt that there are greater possibilities in this method of treatment than are at present generally realised. The remedy is an old one, but of recent years it has been extended and developed as a result of the experiences of the war. The various exercises and games, &c., as well as the musical and dramatic performances arranged for our patients have undoubtedly a stimulating and beneficial effect. It is, however, claimed (and I think with reason) that the benefits to be derived from productive work are often more substantial and more enduring than those produced by the diversional activities just mentioned. In some of our private mental hospitals it is the custom to let the patient buy a plot of ground and sell the produce to the institution. The advantage of this arrangement is that it enables him to see the marketable value of his work, and this in itself promotes a spirit of initiative and self-reliance. It is a good principle to encourage and reward the patient for work done by a gradual extension of privileges. Granting "parole," which enables him to go for walks unaccompanied in the hospital grounds, and, in suitable cases, in the town and country, is as a rule much appreciated. Later this may be extended to permission to visit friends for gradually increasing periods of time. By employing such methods as these it may, in course of time, be found possible to wean the patient from hospital control.

My thanks are due to Dr. D. F. Rambaut for permission to publish the notes of the above case.

References.—Boyle, Helen: Brit. Med. Jour., 1925, ii., 784. Courbon, Paul: Ann. Med.-Psych., December, 1921. Haas, L. J.: Occupational Therapy, 1925. Holmes, Edmond: What Is and What Might Be, London, 1914. Epitome: Jour. Ment. Sci., July, 1923, p. 385; July, 1924, p. 478. MacCurdy, John T.: Jour. Ment. Hygiene, January, 1918. Stoddart, W. H. B.: Mind and its Disorders, London, 1919.

BRIGHTER BIOCHEMISTRY.

"THE chymists are a strange class of mortals impelled by an almost insane impulse to seek their pleasures among smoke and vapour, soot and flame, poisons and poverty." This very proper quotation is to be found upon the title-page of *Brighter Biochemistry*, the illustrated journal of the Biochemical Laboratory at Cambridge. But the quotation does not stop there. "Yet among all these evils," it continues, "I seem to live so sweetly that I may die if I would change places with the Persian King."

And such is the spirit—strange as it may seem—which inspires the third annual number of this witty and amusing production. There are many illustrations, which are chiefly relevant to the personnel of the Sir William Dunn Institute. Most of the humour is local and there is perhaps an excess of it. But in spite of this anyone who has even a moderate knowledge of biochemistry and a sense of humour should enjoy it thoroughly. Cambridge journalism has not produced anything better within recent years. "The Dunnsday Boke" and the report of the holder of the *Brighter Biochemistry* Travelling Fellowship for 1925 are particularly pleasing, whilst everyone will like to see the pictures of Langerhans discovering his islands (complete with a Blue Lagoon and Emmeline and Dick) and of Lawes and Gilbert feeding their pigs.

Copies may be had for 2*s.* 6*d.* from the Editors, the Sir William Dunn Institute, Tennis Court-road, Cambridge.

A CALL TO MEDICAL ESPERANTISTS.

WE have received the first number of a new volume for 1926 of the *Internacia Medicina Revuo*, the official organ of the Tutmonda Esperantista Kuracista Asocio (Universal Esperanto Doctors' Association), which contains a stirring appeal from the pen of Dr. W. Robin, of Warsaw, asking medical esperantists to send to the review accounts of original work by their colleagues in various parts of the world. He points out that unless medical work is reported in an English, a French, or a German journal it is frequently overlooked. Among the articles in the current issue of the review is one by Dr. Maksimiljano Blassberg, of Cracow, on the progress and trend of medical treatment: one on the fight against venereal disease in the United States by Dr. F. Ulman, of Prague; and one dealing with immuno-therapy and protein therapy by Dr. J. Kostrzeski, of Cracow. There are several short original communications, together with editorial extracts from foreign medical journals. The *Revue* is published in France, from rue de la Bassée, 31, Lille, and general inquiries should be addressed to Dr. Briquet there. Original articles should be sent to Dr. Robin, Marszalkowska, 113, Warsaw, Poland, and extracts from medical journals to Dr. Blassberg, Starowislna ul, 18, Cracow, Poland.

"EMERGOPLAST."

THIS is a ready-for-use wound dressing made by Messrs. Edward Taylor, Ltd., of Salford and London. It consists of a strip of medicated gauze with an edging of adhesive zinc oxide plaster which is protected by a covering of muslin. For use the plaster is cut up in suitable sizes and the muslin cover stripped off, thus leaving a piece of gauze with an adhesive strip of plaster on two opposite sides of it. The dressing can be applied to a wound in a moment and the medicated gauze, which may contain iodoform 10 per cent., boric acid 45 per cent., or double cyanide, according to requirements, absorbs the discharge and supplies a disinfectant. Each kind of "Emergoplast" is packed in a box containing one yard 2½ inches wide. The idea is excellent.

THE "CONSTANTE" TRUSS.

Messrs. Alexander and Fowler, of 104 and 106, Pembroke-place, Liverpool, have submitted to us a patent truss which deserves careful trial. They claim that it conforms to the mechanical adaptation of the human hand in its application to the control of hernia. This claim is based on the fact that the band or spring is so constructed that it merely provides a means of holding the hernia pad in place, pressure being obtained by means of a finely tempered spring working independently at the end of the band. This spring may be altered in position so as to give pressure at various points of the pad according to individual requirements. Where it is desirable to limit the outward movement of the pad a rigid finger control-piece is added. By a special gauge the proper amount of pressure for each case can be ascertained and a suitable spring selected.

MANCHESTER ROYAL INFIRMARY.

THE annual report states that the number of patients treated during the year was 57,499, compared with 54,734 in 1924. These included 11,047 in-patients, 17,222 dispensary patients, 26,347 accident-room cases, and 993 venereal diseases clinic out-patients. The daily average of beds occupied by in-patients was 543; the average stay of patients was 17·68 days, and the cost per occupied bed per annum was £165 1*s.* 1*d.* The operations performed numbered 9053. The expenditure was £114,031, an excess of £22,740 over the income. The total number of beds is 1250, made up of 688 in the Royal Infirmary and its central branch, 132 at Barnes Convalescent Hospital at Cheadle, and 430 in the Royal Mental Hospital and branches. There has been a progressive increase in the number of cases treated in the accident-room at the infirmary and at the central branch, from 19,491 in 1922 to the present total of 26,347. The daily average is now 75, as against 50 in 1920. The board of management is faced with a serious difficulty, as the infirmary is not in a position to cope with the increasing demands made upon its in-patient accommodation. At the beginning of the year 1152 persons were awaiting admission to the wards; at the end of it the number had increased to 1682. The situation becomes more acute every year, and the infirmary is able to cope with surgical cases only in emergencies which admit of no delay. For the new nurses' home £150,000 are required, and at the close of the year £45,650 had been received. To diminish the present working hours of the nurses—which are 63 per week for the day staff and 73 for the night staff—to 56 hours, it will be necessary to increase the staff by 157 nurses and domestic servants. The present staff comprises 220 nurses and 113 maidservants. It is intended to make provision in the new home for a total additional staff of 379—266 nurses and 113 maids. The medical superintendent of the Royal Mental Hospital at Cheadle, in a separate report, states that there were 257 patients there, as against 253 in the previous year; 66 voluntary boarders were admitted during the year.